DOCUMENT RESUME

ED 167 815 CE 020 293

TITLE A Guide to Educational Programs in Noncollegiate Organizations. 1977 Edition.
INSTITUTION New York State Univ. System, Albany. Office on Noncollegiate Sponsored Instruction.
SPONS AGENCY Carnegie Corp. of New York, N.Y.
PUB DATE 77
NOTE 245p.; For a related document see CE 019 572

EDRS PRICE MF01/PC10 Plus Postage.
DESCRIPTORS Administrator Education; Aviation Technology; Botany; *Business; *Business Education; Computer Science Education; Counseling; *Credit Courses; Criminology; *Educational Programs; Electronics; Fine Arts; Home Economics Education; Human Services; *Industry; Labor Unions; Personnel Management; Professional Associations; Program Design; State Agencies; Trade and Industrial Education; Voluntary Agencies
IDENTIFIERS *New York

ABSTRACT

This guide contains descriptions and credit recommendations for almost 800 credit courses in a wide variety of subject areas conducted by some 70 organizations in New York State. The organizations include business and industry, labor unions, professional and voluntary associations, government agencies, and other organizations whose primary function is not education. The guide is intended for use in the academic counseling of students. Information provided includes the history of the program; questions and answers for students, administrators, and faculty; and directions for using the guide. Following this, the listing of organizations is given, along with course descriptions. Each course description provides the following information: title, course number, location, length, dates, objective, instruction, and credit recommendation. Appendixes include courses evaluated by other program offices, a list of evaluators, program policies and procedures, and a course index. (CT)

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A GUIDE TO EDUCATIONAL PROGRAMS IN NONCOLLEGIATE ORGANIZATIONS

The University of the State of New York
Office on Noncollegiate Sponsored Instruction
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Albany, New York 12230
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1977 Edition

CE 020 293

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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FOREWORD

The Program on Noncollegiate Sponsored Instruction plays an important role in the development of lifelong education in the United States by assisting persons to gain academic recognition for learning they acquire in settings other than the college campus. The Program accomplishes this by evaluating educational programs and courses sponsored by noncollegiate organizations, including business and industry, government, and labor unions, and by establishing appropriate credit recommendations for them. In this way the Program links postsecondary education and these noncollegiate organizations, and recognizes the fact that learning within the world of work is a significant part of the nation's education system.

The Board of Regents initiated the Program in New York State in early 1974 because of its commitment to the goal of increasing opportunity for access to postsecondary education for persons of all ages. For this purpose the Regents established a credit-by-examination program in 1963 and the Regents External Degree Program in 1970. The Program on Noncollegiate Sponsored Instruction has broadened the approach by establishing an evaluation and credit recommendation system for noncollegiate organizations. In this endeavor we are pleased to work cooperatively with the American Council on Education, the Consortium of the California State University and Colleges, and the Commonwealth of Pennsylvania Education Department. This collaboration helps all the participating agencies better attain their goals.

The *Guide* contains descriptions and credit recommendations for almost 800 courses in a wide variety of subject areas conducted by some 70 organizations in New York State. The recommendations provide postsecondary institutions with reliable standards on which to base credit awards. In this regard I am encouraged by the conclusions of a recent study conducted in New York State showing that 68% of 170 postsecondary institutions in the State now grant credit for noncollegiate sponsored instruction based on the recommendations established through the Program. Moreover, the study indicates that persons are being motivated to enroll as full- or part-time students when they receive academic recognition for the knowledge they have gained in these noncollegiate programs.

As the Program moves into the fifth year, we will continue to evaluate additional courses for a wide range of organizations located in New York State and in the nearby northeastern states where no similar program is available. Expansion of our evaluation services will increase the number of students, postsecondary institutions, and noncollegiate organizations benefiting directly from the Program. This will encourage the full and effective use of all the educational resources in this section of our Nation. As we proceed with the cooperation of the education community, we will continue to broaden access to postsecondary learning for all students.

Gordon M. Ambach
Gordon M Ambach
President of The University
of the State of New York and
Commissioner of Education

November 1977

ACKNOWLEDGMENTS

The University of the State of New York wishes to thank the many individuals and organizations who have contributed to the Program on Noncollegiate Sponsored Instruction and to this edition of *A Guide to Educational Programs in Noncollegiate Organizations.*

Special acknowledgment is given to the American Council on Education, the Consortium of the California State University and Colleges, and the Commonwealth of Pennsylvania Department of Education. Our common efforts and the sharing of information and experience have enabled the Program to expand and to provide more effective service.

The activities of the Program in New York State are funded by the Carnegie Corporation of New York. In addition, a recent one-year contract from the National Institute of Education enabled the Program to conduct a follow-up study. The purpose of the study was to determine the initial impact of the Program in New York State. We are pleased to join with both these organizations in expanding educational options for students of all ages.

We thank the members of the Joint Advisory Board, which has provided guidance and advice in the continuing development of the Program. We are also indebted to the subject matter experts who have served as evaluators (see Appendix B). The credit recommendations in this *Guide* are the result of their thorough and thoughtful analyses of noncollegiate sponsored courses and programs.

We are especially indebted to the administrators and faculties of the colleges and universities in New York State, to the Connecticut Board for State Academic Awards, to the Office of External Programs—Vermont State Colleges, to the many offices within the New York State Education Department that have provided assistance, and to the following associations: American Society of Mechanical Engineers; Council of Deans of Engineering Schools in New York State; Criminal Justice Educators Association of New York State; Institute of Electrical and Electronic Engineers; Mid-Atlantic Association of Colleges of Business Administration; Consortium of Rochester Area Colleges; and the Hudson-Mohawk Association of Colleges and Universities.

This publication was made possible by a grant from the Carnegie Corporation of New York. The statements made and the views expressed are solely the responsibility of the publisher and do not necessarily reflect the opinions of the Carnegie Corporation.

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BACKGROUND

History of the Program

The Program on Noncollegiate Sponsored Instruction is conducted in New York State and other northeastern states by The University of the State of New York. The purpose of the Program is to review formal educational programs and courses sponsored by noncollegiate organizations and to make appropriate credit recommendations for the courses evaluated. These organizations include business and industry, labor unions, professional and voluntary associations, government agencies, and other organizations whose primary function is not education. The credit recommendations are intended to guide colleges and universities as they consider awarding credit to persons who have successfully completed noncollegiate sponsored instruction. In this way students will be assisted in receiving academic recognition for the learning gained in the courses.

The Program is based on the position that it is sound educational practice to grant academic credit for high quality educational programs conducted by noncollegiate organizations, provided that the courses are at the college level, and that the credit is appropriate to an individual's educational program. Moreover, experience has shown that the award of credit for prior learning will in many cases motivate students to enroll in formal postsecondary programs of study.

The first step in the development of the Program came in January 1974 when The University of the State of New York initiated a pilot study. During this preliminary stage, evaluations were made of 102 courses sponsored by eight organizations located in New York State. In the process, credit recommendamendations were established when courses were found to be at the college level, and the components of a model for a reliable and workable review system were identified. In accomplishing this, the study used and modified the procedures and criteria that the American Council on Education had used since 1945 in evaluating formal military courses, and tested their applicability to the review of nonmilitary courses. The results of the pilot study were published in December 1974 in the first edition of *A Guide to Educational Programs in Noncollegiate Organizations.*

In the Summer of 1974 the American Council on Education joined The University of the State of New York in the conduct of the Program. Both agreed to operate under jointly established evaluative policies and procedures approved by both the Council's Commission on Educational Credit and the New York State Board of Regents (see Appendix C). During 1976 the Consortium of the California State University and Colleges and the Commonwealth of Pennsylvania Department of Education joined in the operation of the Program. Also, in the Fall of 1976, under a contract with the National Institute of Education, the Program conducted a follow-up study in New York State to determine if it was beginning to achieve its objectives. The major findings of that study are reported in the next part of the Background.

The second edition of the *Guide*, which was a joint publication of The University of the State of New York and the American Council on Education, reported on courses reviewed during the period from November 1974 to October 1975. Descriptions of the courses reviewed during the pilot study were also included.

This third edition of the *Guide* reports on the 761 courses conducted by 67 organizations which have been evaluated by The University of the State of New York and received credit recommendations since January 1974. The *Guide* will be continually updated by supplements published on a regular basis to include new credit recommendations established through the review system. The *Guide* is made available to postsecondary institutions and noncollegiate organizations throughout the nation. A separate edition of the *Guide* is being published by the American Council on Education, and will include courses reviewed by the Council, the Consortium of the California State University and Colleges, and the Commonwealth of Pennsylvania Department of Education. The list of courses evaluated by California and Pennsylvania which have received credit recommendations is found in Appendix A.

The University of the State of New York is the most comprehensive educational organization in the nation. It encompasses and has responsibility for all educational concerns in the State, including private and public higher institutions, elementary and secondary schools, museums, libraries, historical societies, and other agencies whose primary function is education. The Regents and the Commissioner of Education determine the State's educational policies and establish standards for maintaining quality schools. Among other things, they charter educational institutions and organizations, approve and supervise academic programs leading to college degrees, and regulate the preliminary education requirements for admission to the practice of most professions in the State. The New York State Education Department is the executive and administrative arm of the Board of Regents of The University of the State of New York. The Program is administered by the Department's Office on Noncollegiate Sponsored Instruction.

Follow-Up Study

In the latter part of 1976, the Program in New York State began a one-year follow-up study to answer the following questions about practices during the 1975-76 academic year. Have the credit recommendations been used, and how have they been used by colleges and universities? How have the credit recommendations affected noncollegiate organizations? Who are the student users of the credit recommendations, and what effect have the recommendations had on them? The major findings of the study are summarized here.

A majority (68%) of the 170 postsecondary institutions responding to the college survey reported that they have an institutionwide or department policy on using the credit recommendations or are developing such a policy. Only 37% of the responding institutions indicated that they had a policy on recognizing noncollegiate sponsored instruction. The records of 65 of the institutions indicate that nearly 1,100 students applied for credit evaluated courses during the 1975-76 academic year, and that 89% of them received either credit or course exemptions.

Of the 39 noncollegiate organizations that were surveyed, more than half reported that, since their courses were evaluated, enrollment in those courses which received recommendations has increased and student performance has improved. Thirty-six percent (36%) of the responding organizations are revising additional courses in accordance with the Program's evaluative policies and procedures. Seventy-two percent (72%) of the organizations now use these same evaluative criteria when they develop new courses for their employees or members.

The 469 responding students reported that they received credit for 82% of the courses that they submitted to colleges during the 1975-76 academic year. Courses were submitted to colleges in New York State and to colleges in other states throughout the nation. Thirty-five percent (35%) of the responding students who were not enrolled in college at the time the credit recommendations were established reported that they were motivated to enroll in a college course or degree program because they received credit for noncollegiate sponsored instruction. Since most of the respondents were already enrolled in college, the credit granted to most students for the recommended courses was used to accelerate their study in college programs.

The follow-up study provided the Program with a valuable instrument for internally assessing its initial impact in New York State, and the results indicate that it is meeting its established objectives. Moreover, at a useful and early stage in the Program's development, the study enabled the staff to systematically assess its operational policies and procedures. The purpose of these improvements is to bring about better services to students, noncollegiate organizations, and colleges. For more detailed information on the study, please contact the Program's office listed on the title page of the *Guide*.

For information concerning the activities of the other Program offices contact the following:

Program on Noncollegiate Sponsored Instruction
Office on Educational Credit
American Council on Education
One DuPont Circle, N.W.
Washington, D.C. 20036
Telephone: (202) 833-4770

Program on Noncollegiate Sponsored Instruction
The Consortium of the California State
University and Colleges
400 Golden Shore
Long Beach, California 90802
Telephone: (213) 590-5696

Program on Noncollegiate Sponsored Instruction
Office of Lifelong Learning
Department of Education
Box 911
Harrisburg, Pennsylvania 17126
Telephone: (717) 783-8228

THE REVIEW PROCESS

The credit recommendations in this *Guide* are established through a thorough and objective evaluation process. The following description is provided to enable users of the *Guide* to understand this process. A more detailed explanation of the evaluative policies and procedures followed in the Program will be founded in Appendix C.

Noncollegiate organizations participate in the Program on a voluntary basis. Each sponsoring organization selects courses for review with the assistance of Program staff. Only educational programs or courses conducted on a formal basis and with official approval of the sponsoring organization are considered for review. Informal training or job experience is not reviewed.

Courses must present what is thought to be college-level material. Classroom-based courses conducted over an extended period of time must contain at least 30 hours of instruction; those offered on an intensive basis must be at least 35 hours in duration. Such courses must have a prescribed program of instruction and be taught by qualified instructors. All courses must include an appropriate method of evaluating student performance. In the case of correspondence and independent study courses, there must be supervised final examinations administered under secure conditions.

Organizations supply the following information for each course submitted for review:

1. A syllabus describing the objectives and content of the course.
2. Instructional materials used (textbooks, audiovisual materials, case studies, etc.)
3. Procedures used for measuring the performance of students in the course and samples of the evaluation procedures.
4. Criteria and procedures by which instructors are selected.
5. Educational background and work experience of the students taking the course.
6. Duration of the course.

Each organization also supplies information on the administration of its educational activities, including an explanation of procedures for course development and revision, of procedures for recordkeeping and reporting, and of controls to insure uniformity of quality and course content when a course is offered in several locations.

Review teams are normally composed of three to five persons who are selected from college and university faculties and from noncollegiate organizations. They are selected on the basis of their knowledge and experience in the subject area of the courses to be reviewed. Evaluators are suggested by postsecondary institutions, professional and educational associations, and noncollegiate organizations. (A list of evaluators is found in Appendix B.)

Review sessions are usually conducted at the location of the organization offering the courses. Organizational staff members familiar with the courses are available to answer questions that may arise during the review of the course materials. After a thorough review of all the information and materials supplied by the organization, the team members first decide if a course is at the college level. If it is, they then determine the category of credit (described in the section "How to Use the Guide"), the number of credit hours, and the appropriate subject area or areas to recommend. Whenever the team establishes a credit recommendation for a course, it has determined that the method of assessment is adequate to judge that students successfully completing the course have mastered the subject matter. The team members also review each course exhibit (the description of the course that will appear in the *Guide*) to insure that it adequately describes the course.

In some cases, the team may evaluate together a group of two or more related courses which individually are too short to be eligible for review. If appropriate, a single credit recommendation is established for the group of courses, and it applies only when a student has completed all of them.

In other cases, the team may recommend that no academic credit be granted. Reasons given for failure to recommend credit have included: (1) the course is too limited in scope or too highly technical to be comparable to college programs; (2) the material presented in the course is not at the college level; (3) adequate evaluation of student performance is lacking; and (4) insufficient material is presented on which to base a judgment. Courses for which credit recommendations are not made are not listed in the *Guide*.

QUESTIONS AND ANSWERS FOR STUDENTS

How do courses receive a credit recommendation? Each sponsoring organization selects the courses it would like to have reviewed. Only educational programs conducted on a formal basis and with official approval of the sponsoring organization are listed in this *Guide.* Individual students may *not* submit courses for review.

How are the credit recommendations used? Primarily to obtain college credit or advanced college placement. It may also be possible to use the credit recommendations for entry into new areas of employment, for job advancement, to obtain salary benefits, and for personal assessment.

Is college credit automatically earned when someone successfully completes a course listed in the GUIDE? No. Successful completion of such a course results in actual course credit only when the course is accepted toward a degree at a postsecondary institution. If you have already taken one of the courses listed in the *Guide,* or plan to take one, you are advised to contact the admissions office at the college in which you are interested to determine the acceptability of the course for academic credit.

How many credits is each course worth? The recommended number of credits for each course is listed at the end of each course exhibit. This recommendation is made by a team of subject matter experts when it has determined that a course is at the college level.

These are recommended credits. A college is not required to grant a student credit in the amount recommended by the reviewers nor, in fact, is a college limited to that amount should it feel that a person's performance in the course deserves additional credit.

Are policies for granting credit the same in all colleges? No. Each college sets its own policies, and these vary from college to college. Some colleges may refuse to grant credit for successful completion of a course conducted by a noncollegiate organization for which another college would grant credit. It should also be noted that a college may not grant credit but may, instead, waive a prerequisite or a required course.

Each institution and, in many cases, each academic unit and department within each institution, sets its own policies for granting credit. The admissions office in a college should be able to guide you to the appropriate official responsible for making the decision for granting credit.

Is credit awarded for courses listed in the GUIDE as "good" as credit earned on a campus? Yes. When an institution grants you credit for a course sponsored by a noncollegiate organization, this credit has as much value toward a degree as does credit earned through regular college courses.

How much credit may be earned from courses taken in noncollegiate organizations? Institutions have different policies regarding the amount of credit that may be earned off-campus. You should check with the college you are planning to attend to determine both the amount of credit which will be granted for such courses and the subject areas in which the college will grant credit for these courses.

When will credit be awarded? In most cases a person should apply for credit when formally applying for admission to a college. Some colleges may grant credit only provisionally at that time and withhold full credit until the student successfully completes either some courses they offer or a specific number of credits.

Can credit be earned for a course completed in the past or taken from a former employer? Yes. The credit recommendation established for each course described in the *Guide* can be used by anyone who successfully completed the course during the period listed in the "Dates" section of each course exhibit. When "Present" is given as the second date, this indicates that the course is still being offered by the organization as of the publication date for this edition of the *Guide.* Each organization listed in the *Guide* keeps records of its present and former employees who completed the courses during the periods indicated and will supply them upon request.

Is there a minimum acceptable performance level before credit will be awarded? Yes. A college will consider granting academic credit to a student for a course only after it has received an official record from the sponsoring organization verifying that the person *successfully* completed the course.

How are student records for courses listed in the GUIDE reported to colleges? The organization sponsoring a course you have completed will provide an official record at your request. The official record will enable a college official to verify that you successfully completed the course and the date of completion. The source of official student records for each organization is noted in the introduction under each organizational heading.

Can one earn credit for courses offered by noncollegiate organizations but not listed in the GUIDE? Yes. Some institutions will evaluate students' knowledge individually, often by means of examinations. There are also nationwide proficiency examination programs which may be used to validate study in courses not listed in the *Guide*. A growing number of colleges and universities accept credits earned through these examinations.

The College Entrance Examination Board administers the College-Level Examination Program (CLEP). To obtain more information on CLEP write to:

College-Level Examination Program
P.O. Box 1821
Princeton, New Jersey 08540

The New York State Education Department administers the College Proficiency Examination Program (CPEP) and the Regents External Degree Examinations (REDE). Besides being offered four times a year in New York State, most CPEP and REDE examinations are administered around the world by the American College Testing Program (ACT). For information on testing in New York State write to:

The New York State Education Department
RED-CPE Program, Room 1919
99 Washington Avenue
Albany, New York 12230

For information on testing outside of New York State write to:

ACT Proficiency Examination Program
American College Testing Program
P.O. Box 168
Iowa City, Iowa 52240

QUESTIONS AND ANSWERS FOR ADMINISTRATORS AND FACULTY

Should the applicant receive special consideration for education gained in noncollegiate organizations? Credit for those courses evaluated by the Program on Noncollegiate Sponsored Instruction should be considered on the same basis as credit accepted by transcript from another institution. In this connection, institutions generally will require the applicant to furnish full information about previous college-level studies and a proposed future program of study before granting credit for such courses.

Are the credit recommendations advisory only? Yes. Each institution is free to accept, modify, or reject them as it sees fit. They are based on consultants' review of content, level of complexity, educational quality, and objectives of the programs and courses of the noncollegiate organizations.

How should a grade from a noncollegiate organization be interpreted? Grading systems vary widely among noncollegiate organizations. Most organizations award certificates of successful completion on a pass/fail basis, and no attempt has been made to convert them to traditional grading systems. A recommendation of academic credit for a course taken in a noncollegiate organization should, therefore, be interpreted as being applicable when the student presents official evidence of having successfully completed or passed the course.

How should credit recommended for educational programs in noncollegiate organizations be applied to the individual's program of study? Credit can be validly granted in either required or elective areas, provided the particular course and credit recommendation are appropriate to the individual's program of study.

What credit should be granted if the educational program in a noncollegiate organization duplicates specific courses in a postsecondary institution? In these instances credit for a course taken in a noncollegiate organization should be granted only if the student has not completed a comparable college course. Most often, however, these educational programs do not exactly duplicate college courses, but do contain instruction applicable to a general area of collegiate study. In such cases credit can be granted toward required or elective courses in the area, depending on the instructional program at the institution and the specific educational objectives of the individual.

What credit should be granted when the applicant has completed several courses in a noncollegiate organization which are apparently in the same subject area and at the same level? An appropriate official should carefully review the descriptions of all courses in the same subject area which the person has completed and for which credit is recommended. If it appears that instruction is duplicated among the several courses, officials may wish to apply the credit recommendations so as to avoid granting duplicate credit for the courses.

What is the maximum amount of credit that should be granted for courses taken in noncollegiate organizations? The amount of credit granted should be appropriate to the individual's educational background and goals, and to the policies of the institution. Thus, the maximum amount of credit awarded for courses taken in noncollegiate organizations will vary according to individual circumstances.

Should the applicant present official records proving successful completion of an educational program conducted by a noncollegiate organization? Educational institutions should require the applicant to verify the fact that he or she has successfully completed such a program or course by having official records submitted. The introduction for each organization listed in the *Guide* indicates the appropriate source of official student records.

HOW TO USE THE GUIDE

This *Guide* is intended for use in the academic counseling of students. The credit recommendations and course descriptions provide information for education officials to consider when granting credit to students for learning acquired in noncollegiate organizations.

In order to make the best use of the *Guide*, careful consideration should be given to this section. It explains the types of courses which may be found in the *Guide*, how to locate a particular course exhibit, how to interpret course exhibits, how the credit recommendations might be used, and how to receive assistance from the Office on Noncollegiate Sponsored Instruction.

The courses listed in the *Guide* represent only a small sample of the educational programs conducted by the participating organizations. In addition, many other organizations in the United States conduct a wide range of high quality educational programs for their employees or members. These are not included in this edition of the *Guide* because they have not been submitted for review. Readers are cautioned against making adverse judgments on the educational programs of any noncollegiate organization merely because they are not listed in the *Guide*. Students who have completed such unlisted courses should be given every consideration in accordance with institutional policies and practices.

Only those courses for which credit recommendations have been made are listed in the *Guide*. However, the Office will inform college officials, upon request, if a particular course for one of the participating organizations was reviewed and no credit recommended.

How To Locate A Course Exhibit

Each course in the *Guide* is listed in the index and in the text alphabetically by title under the name of the organization that offers it. Therefore, it is necessary to identify the sponsoring organization before a course can be located. In some cases, a group of courses that form an integrated program are reviewed; these courses and a paragraph describing the program are listed alphabetically under the title of the program.

How To Read A Course Exhibit

After each organizational heading there is an introduction that provides general information about the organization, its training and educational activities, and the source of official records of student performance in its courses. Following the introduction, each course exhibit identifies the course and provides specific information about the course content and the credit recommendation.

Each course exhibit provides the following information:

Title: Official course title used by the organization. In some cases, an additional title or subtitle has been assigned by the review team for purposes of explanation and clarity; this title, listed in parenthesis below the official title, is not used by the organization.

Course Number: Official course number, when provided by the organization, in parenthesis following the course title.

Location: The site(s) where the course is offered. Correspondence and independent study courses are identified as such.

Length: Duration of the course in contact hours and, when appropriate, in days or weeks. The length is followed by any additional relevant information describing the course. The term "residential" indicates that the students reside at the location where the course is given for the duration of the course. Correspondence and independent study courses are identified as such.

Dates: The beginning and ending dates of the course, expressed by month and year. The dates cover the period during which the course has been offered with substantially the same content and procedures as at the time of its review; the credit recommendation applies to a person who successfully completed the course during that period. The first date indicates the time from which the recommendation first applies; the second, the time at which the recommendation ceases to apply. When "Present" is given as the second date, it indicates that the recommendation applies as of the publication date for this edition of the *Guide*. Credit recommendations are backdated no more than ten years prior to the review date.

Objective: The purpose for which the course is offered.

Instruction: A description of the major topics covered and teaching methods, materials, and equipment used. Together, the objective and instructional description supplement the credit recommendation by providing essential information about the nature of the course.

Credit recommendation: The category of credit, the number of semester hours recommended, the appropriate subject area(s), and the date reviewed.

1. *Categories of Credit:*

   a. Vocational Certificate. This category includes course work normally found in year long certificate programs which are designed to provide students with occupational skills; in many two-year institutions, they are also found in curricula leading to associate degrees in technical programs. Course content is specialized, and the accompanying shop training emphasizes procedural rather than analytical skills.

   b. Lower Division Baccalaureate/Associate Degree. This category includes course work found in programs leading to the Associate in Arts, Associate in Science, and Associate in Applied Science degrees and introductory-level course work normally found in baccalaureate programs. Emphasis is on learning basic principles that have broad, judgmental application.

   c. Upper Division Baccalaureate. This category includes course work usually completed during the last two years of a baccalaureate program. The courses generally involve specialization of a theoretical or analytical nature beyond the introductory level.

   d. Graduate Degree. This category includes course work leading to a graduate degree. The courses tend to be oriented toward independent study, original research, critical analysis, and the scholarly and professional application of the specialized knowledge within a discipline.

   NOTE: In some instances, credit is recommended in more than one category. A decision must be made by the college as to which category of credit best applies to a student's educational program.

2. *Semester Hours:* All credit recommendations are made in semester hours. Credit recommendations are not derived by simple arithmetic conversion of contact hours to semester hours; the review teams base their recommendations on both the range and level of complexity of the subject matter covered and the number of contact hours.

3. *Subject Area(s):* In alphabetical order, the recommended subject area(s) in which credit might be applied. The designation of these general areas does not exclude the application of the credit recommendation to other areas not mentioned in the course exhibit.

4. *Date of Review:* The month and year in which the credit recommendation was established is listed in parenthesis following the subject area(s).

Verifying Student Records

Students who apply for credit for courses conducted by noncollegiate organizations should be required to submit official records to verify that a course was successfully completed. Each organization will supply official records at a student's request. The source of official records for each organization is identified in the introduction following each organizational heading.

Awarding Credit Based on the Recommendations

Course information and credit recommendations are provided in the *Guide* to assist college officials in assessing the applicability of a student's education in a noncollegiate organization to his or her program of study. Actual credits granted will depend on an institution's degree requirements and general policy on granting credit for college-level learning achieved outside that institution.

Credit for each course may be applied to a student's program of study in various ways: (a) applied to the major to replace a required course, (b) applied as an optional course within the major, (c) applied as a general elective, or (d) applied to waive a prerequisite.

Duplication of Credit

Each course listed in the *Guide* is reviewed on the assumption that a student takes only that course. However, since a student may take several courses which are apparently in the same subject area and at the same academic level, institution officials should carefully review the course objective and instructional description in the *Guide* for each course the student completed and for which credit is requested. If it appears that major topics of instruction are duplicated among the several courses, officials may wish to adjust the credit recommendations in order to avoid granting duplicate credit.

Advisory Service

The Program maintains an advisory service to provide information on the evaluation and credit recommendation system to organizations, colleges, and individual students.

Publication of *A Guide to Educational Programs in Noncollegiate Organizations* is the primary means of disseminating the results of course evaluations. The *Guide* is sent to several officials in each college in New York State, to colleges in other states, to the noncollegiate organizations participating in the Program, and to other interested individuals and organizations. Since evaluations are conducted on a regular basis, credit recommendations continue to be established for new courses and organizations. After each evaluation, an organization is sent the official descriptions and credit recommendations for the courses which were evaluated as well as a letter explaining that the courses will appear in the next edition of the *Guide*. To keep the colleges informed, new courses are published in the State Education Department's bimonthly news letter, *PS: Postsecondary Education in New York State*. *PS* is sent to all colleges in the State, interested colleges in other states, and a large number of individuals and noncollegiate organizations. In addition, on request, the Advisory Service furnishes more specific information on the courses listed in the *Guide* and *PS* and offers assistance in the interpretation and use of published results.

It is the Program's general policy to publish in this *Guide* those courses for which credit is recommended. A course might not be included for one of several reasons: (1) it has not been submitted for evaluation, (2) it has been reviewed since publication of the *Guide*, (3) it has been evaluated and has received a negative credit recommendation, and (4) credit has been recommended but the sponsoring organization, for its own reasons, has requested that the course not be publicized. Whatever the case, the Advisory Service will respond to individual requests about the status of an organization's courses.

Information on the use of credit recommendations by colleges in New York State is published in *Granting Credit for Noncollegiate Sponsored Instruction in New York State*. The booklet contains the results of a survey of all colleges in the State to collect information about their policies for using the credit recommendations, specific information about their practices, and the appropriate source of information for students and noncollegiate organizations.

For Advisory Service assistance, contact:

Advisory Service
Office on Noncollegiate Sponsored Instruction
State Education Department
99 Washington Avenue, Room 1845
Albany, New York 12230

Telephone: (518) 474-8592

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AGWAY, INC.

Agway, Inc. is a farm supply and food marketing cooperative business organization owned by more than 117,000 farmer-member stockholders. The organization serves agriculture in 12 northeastern states. In addition to providing numerous farm production supplies and marketing some of the products raised by its members, Agway is a diversified organization involved in petroleum, insurance, and sales financing. In 1975, total employment was approximately 10,200 persons.

The educational programs and courses offered by Agway for its employees are designed to provide practical training, opportunity for personal development, and opportunity for improved performance and future development. In addition to offering a variety of training and development programs, Agway utilizes an assessment center to help employees formulate career plans and identify educational needs.

Source of official student records: Director of Training, Agway, Inc., Box 1333, Syracuse, New York 13201.

AGWAY INSURANCE

Source of official student records: Administrative Sales Manager—Insurance, Agway, Inc., Box 1333, Syracuse, New York 13201.

Life and Accident and Health Insurance

Location: Agway Insurance, Dewitt, NY.

Length: 48 hours (5-1/2 days).

Dates: January 1975—Present.

Objective: To provide the student with product knowledge of the various life and accident and health insurance contracts; to prepare the student for State licensing examinations in these areas.

Instruction: Survey of life and health insurance contracts, policy provisions, and principles.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Life and Health Insurance (1/76).

Property and Casualty Training Course

Location: Agway Insurance, Dewitt, NY.

Length: 120 hours (3 weeks).

Dates: September 1973—Present.

Objective: To provide the student with product knowledge of the various property and casualty insurance contracts; to prepare the student for his/her State property and casualty insurance licensing examination.

Instruction: Survey of property and casualty insurance contracts, policy provisions, and principles.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Property and Casualty Insurance (1/76).

Agway Management Development Program (Retail Management)

Location: Corporate headquarters in Dewitt, NY, and individual divisional headquarters.

Length: 118 hours (50 weeks); formal classroom sessions and programmed instruction.

Dates: August 1975—Present.

Objective: To provide the student with a general orientation to the field of management as applied to retail operations.

Instruction: Retail management operations including balance sheet, operating statement, credit and accounts receivable, control of cash, inventory management, personnel, services, grain marketing, merchandising, production and distribution, and wage and salary; managerial functions (planning, organizing, directing, coordinating, and controlling); affirmative action accountability, financing, leadership development, leadership styles, management by goals, and motivation; advertising and sales promotion.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Retail Management (11/75).

Introduction to Systems Analysis

Location: Corporate headquarters, Dewitt, NY.

Length: 30 hours (10 weeks).

Dates: March 1975 – Present.

Objective: To provide the student with an understanding of systems theory and project management techniques required to design and develop management information systems.

Instruction: Systems theory with special emphasis on network analysis (CPM and PERT); systems analysis; communication theory; techniques to evaluate alternative solutions regarding new information systems; project management. Student assignments consist of interviews, research, and the development of an information systems model.

Credit recommendation: In the graduate degree category, 3 semester hours in Computer Science or Management (10/76).

AMERICAN BANKERS ASSOCIATION STONIER GRADUATE SCHOOL OF BANKING

The Stonier Graduate School of Banking is sponsored by the American Bankers Association, the national organization of the banking industry. The Association's total membership includes some 18,000 banks, or about 97 percent of the nation's commercial banks.

The purpose of Stonier's educational program is to develop bank managers for future responsibilities. The student body is composed of bank officers and officials of bank regulatory agencies. The program involves three two-week resident sessions on campus at Rutgers University over a period of three years and ten between-session extension problems, together with a thesis requirement. There is regular use of case studies, prep groups, lectures, question/answer sessions, and computer-based simulation games.

The curriculum is designed to serve executives of small banks as well as officers of large, departmentalized institutions. Focal points of the program are the tools of bank management and the provision of an analytical framework within which general management problems can be recognized and solved. The emphasis is on basic policy and management problems, as distinguished from specialized skills and the how-to details and mechanics.

For evaluation purposes, topics taken throughout the three-year program were grouped together into five courses. Thus, students requesting credit must have completed the entire program.

Source of official student records: Registrar, Stonier Graduate School of Banking, 1120 Connecticut Avenue, N.W., Washington, D.C. 20036.

Business Policy

Location: Rutgers University, New Brunswick, NJ.

Length: 30 hours; approximately 150 hours of independent study.

Dates: June 1969 – Present.

Objective: To provide the student with the opportunity in the last year of the program to formulate decisions and determine strategies of managing a financial institution through a management interactive game.

Instruction: This course culminates the three-year program by allowing the student to make decisions and determine policy on loans, deposits, investments, capital, dividend policy, marketing, pricing, premise policy, cost control, planning, and liquidity management. Theory and practical experience are merged through the computer model and lectures. The student assumes the role of upper management in making vital decisions affecting the future of the firm.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Management (6/77). NOTE: The entire three-year program must be completed in order for the student to receive credit.

Commercial Banking

Location: Rutgers University, New Brunswick, NJ.

Length: 45 hours; approximately 75 hours of independent study.

Dates: June 1967 – Present.

Objective: To provide the student with a thorough understanding of the varied functions performed in modern commercial banks.

Instruction: Covers a wide range of topical and functional areas including bank credit, bank marketing, and consumer banking. Students also can select from other subject areas including accounting, real estate, profit planning, and cash management. Extensive use of the case method.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Finance or Management (6/77). NOTE: The entire three-year program must be completed in order for the student to receive credit.

Macroeconomics

Location: Rutgers University, New Brunswick, NJ.

Length: 35 hours; approximately 100 hours of independent study.

Dates: June 1967 – Present.

Objective: To provide the student with an understanding of the principles of Macroeconomics, with particular emphasis on the institutions, policies, and problems within the American economic system today.

Instruction: National income accounts; the role of money and the banking system in the Money and Capital Markets and the functioning of these markets; fiscal and monetary policies as they influence such issues as aggregate demand, employment, debt management, and inflation; simulation models in forecasting; the operation of the international economy, including the international payments system. Lectures and discussion are used, along with between-session extension problems.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Economics (6/77). NOTE: The entire three-year program must be completed in order for the student to receive credit.

Management of Commercial Banks

Location: Rutgers University, New Brunswick, NJ.

Length: 45 hours; approximately 75 hours of independent study.

Dates: June 1967 – Present.

Objective: To provide management skills in a variety of activities in a commercial bank.

Instruction: Covers specific management concepts and problems such as the Electronic Funds Transfer System, managing social responsibility programs, bank insurance and risk management, and bank holding companies. Special emphasis on the asset and liability responsibilities of modern bank management. Integrates general human relations and personnel concepts. Employs the case method for skill development.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Management (6/77). NOTE: The entire three-year program must be completed in order for a student to receive credit.

Thesis or Assigned Research Project

Location: Rutgers University, New Brunswick, NJ.

Length: Independent study; a minimum of 200 hours.

Dates: June 1967 – Present.

Objective: To provide the student with the skills needed to conduct and present original research.

Instruction: During the last year of the program each student is required to prepare a thesis on a subject of his/her own choosing that is related to some current aspect of banking or to complete an assigned research project. Either choice requires original thinking and fact finding, and requires that the student submit a finished report involving a systematic organization of subject matter, original expression of ideas, authoritative documentation, and logical conclusions. Both assignments are comparable in terms of analytical requirements, writing skills, and length.

Credit recommendation: In the graduate degree category, 3 semester hours to satisfy thesis or research methods requirements (6/77).

AMERICAN INSTITUTE OF BANKING

The American Institute of Banking (AIB) is an educational arm of the American Bankers Association, the national association of the banking industry. Its total membership includes some 18,500 banks and branches, about 97 percent of the nation's commercial banks. AIB is part of the Education Group, one of the six working groups of the Association.

The major purpose of AIB is the education and training of bank personnel. AIB consists of a network of over 500 chapters throughout the United States and more than 100,000 annual enrollments in individual courses. Each chapter functions autonomously, initiating and financing its own activities. AIB chapters attempt to meet the needs of local bank personnel through courses, seminars, and other educational activities. Each chapter selects its own instructors, arranges for classroom space, promotes its offerings, and handles related financing. Because each chapter is autonomous, credit recommendations established for courses offered by a specific chapter apply only to that chapter.

AMERICAN INSTITUTE OF BANKING ALBANY CHAPTER

The Albany Chapter of the American Institute of Banking (AIB) provides academic and professional courses in contemporary areas of banking activities for employees of 24 banking institutions in Albany, Columbia, Greene, and Rensselaer Counties.

The courses listed below constitute the majority of the offerings within the Chapter's Basic, Standard, and Advanced Programs. These programs combine academic and technical banking curricula frequently not duplicated in collegiate or vocational institutions. These courses are taught in classrooms provided by banks and colleges throughout the Albany area.

Please note that the credit recommendations listed below apply *only* to courses offered by the Albany Chapter of AIB.

Source of official student records: Permanent Secretary, American Institute of Banking, 11 North Pearl Street, Home Savings Bank Building, Albany, New York 12207.

Accounting: Principles and Applications, Part One

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1968 – Present.

Objective: To provide the student with a basic understanding of accounting theory and practice, including the preparation of financial statements.

Instruction: Fundamentals of accounting theory. Use of journals and ledgers; the preparation of financial statements; accounting for notes and interest; the use of a voucher system.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Accounting (8/76).

Accounting: Principles and Applications, Part Two

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1975 – Present.

Objective: To provide the student with an advanced understanding of accounting principles and practices, including corporation accounting.

Instruction: A continuation of Accounting, Part One. Accounting for partnerships; corporation accounting; departmental accounting; inventory valuation; plant assets and depreciation; manufacturing cost accounting; basic statement analysis.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Accounting (8/76).

Analyzing Financial Statements

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: August 1966 – Present.

Objectives: To provide the student with an understanding of the characteristics of financial statements and procedures of analysis.

Instruction: The principles and policies involved in the appraisal of credit risks by analysis of accounting statements of financial condition. Concepts, characteristics, and tools of financial statements; financial statement analysis (ratio analysis, liquidity analysis, and earnings analysis); balance sheets and operating statements; tests used in appraising financial statements of various industries as a basis for credit.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Banking or Finance (8/76).

Bank Investments

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: January 1968 – Present.

Objective: To provide the student with an understanding of bank management of the securities portfolio.

Instruction: Description of the nature of primary reserves and loanable funds and how their uses are determined; analysis of the primary and secondary reserve needs of commercial banks, the sources of reserves, their random and cyclical fluctuations, and the influence of these factors on investment policy; a study of yield changes as they affect a bank's long-term holdings. (Prerequisite: Money and Banking or equivalent experience.)

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Banking, Business Administration, or Finance (8/76).

Bank Letters and Reports

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: August 1966 – Present.

Objective: To provide the student with the skills necessary to write professional letters and memos.

Instruction: Fundamental principles underlying quality correspondence; different types of bank-written communications (collection letters, letters pertaining to loans and trusts, and departmental and branch reports).

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Communications (8/76).

Business Administration

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1976 – Present.

Objective: To provide the student with an understanding of business and the methods and procedures used in making business decisions and a familiarity with business terminology.

Instruction: Business and society; ownership, organization, and management; marketing; finance; quantitative controls; legal and regulatory environment of business.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration (5/77).

Credit Administration

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: August 1966 – Present.

Objective: To provide the student with a basic understanding of credit administration.

Instruction: The principles of credit and loan administration; working capital loans; secured loans; term loans; real estate loans; credit investigations; the responsibilities of the bank lending officer.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Banking, Finance, or Management (8/76).

Effective English

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1976 – Present.

Objective: To enable the student to develop effectiveness in reading, writing, listening, and speaking, and the application of the fundamental principles of word usage, grammar, and style.

Instruction: Purposes of writing; organizing ideas; paragraphs; sentences; diction; choice of words; style; persuasion; business letters; review of grammar and usage; vocabulary; research papers.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration, Business Communication, or English (5/77).

Effective Speaking

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1966 – Present.

Objective: To enable the student to develop effective oral communication skills.

Instruction: The acquisition of basic skills and confidence needed to speak effectively; introduction to the behavioral principles underlying effective oral communications. The organization of content; building self-confidence and poise; the use of body and voice mechanisms as effective tools of thought communication. Instruction includes a weekly presentation by each student.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration or Business Communication (8/76).

Financing Business Enterprises

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: January 1967 – Present.

Objective: To provide the student with an understanding of how to finance business enterprises.

Instruction: Description of how to organize and finance the operations of a business enterprise. Types of businesses (incorporated and unincorporated); capitalization of earnings; evaluating risk; equity capital, borrowed capital, and term capital; short-term credit; working capital and turnover ratios; cash flow and budgets; merger and consolidation; failure, reorganization, and bankruptcies.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Banking, Business Administration, Finance, or Management (8/76).

Fundamentals of Bank Data Processing

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: January 1968 – Present.

Objective: To provide the student with the basic concepts of electronic data processing, with specific reference to bank automation.

Instruction: Survey of data processing and computer concepts; punched card data processing equipment and programming; data recording, storage, processing, input, and output; computer programming (flow charting and coding).

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Accounting, Business Administration, Electronic Data Processing, or Secretarial Science (8/76).

Home Mortgage Lending

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1972 – Present.

Objective: To provide the student with an overview of home mortgage investment by savings and commercial banks.

Instruction: An introduction to the home mortgage field; the mortgage market; the mortgage portfolio; appraisal; credit analysis; legal aspects; the processing and servicing of the mortgage.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Banking or Finance (8/76).

Instalment Credit

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: August 1966 – Present.

Objective: To provide the student with basic knowledge of instalment credit and its administration.

Instruction: Instalment credit; the techniques of instalment lending; establishing credit; obtaining and checking information; servicing the loan and collecting the amounts due; inventory financing; special loan programs; business development and advertising; the public relations aspect of instalment lending.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Banking or Finance (8/76).

Law and Banking (Business Law)

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: August 1970—Present.

Objective: To provide the student with a basic knowledge of the concepts of business law.

Instruction: Introduction to law. Jurisprudence; the court system; contracts; property; torts; agencies; partnerships; corporations; sales of property; commercial paper; bank deposits. Emphasis is on the Uniform Commercial Code.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration or Law (8/76).

Marketing for Bankers

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1975—Present.

Objective: To provide the student with an understanding and appreciation of the marketing function in banking.

Instruction: Concepts and philosophies of marketing; marketing information, research, and target; the marketing mix (product strategy, distribution strategy, advertising and sales promotion, personal selling, and pricing strategy); the methods of marketing planning.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration or Marketing (8/76).

Principles of Bank Operations

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: August 1966—Present.

Objective: To provide the student with an understanding of the fundamentals of bank functions.

Instruction: Survey of bank functions and operations. Teller operations; savings and time deposits; bookkeeeping operations; loans and investments; determination of service charges; legal relationships with depositors.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Banking, Business Administration, or Finance (8/76).

Principles of Economics

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: January 1977—Present.

Objective: To provide the student with knowledge of the theory and practical application of basic economic principles.

Instruction: Economics and economic systems; the market economy; costs and prices; types of product markets; managerial economics; wages; rent, interest, and profit; national income; the monetary system; the Federal Reserve System; savings institutions; government finance; the world economy and international economics.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Economics (5/77).

Savings Bank Organization

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1974—Present.

Objective: To provide the student with a broad knowledge of savings bank structure, functions, and the laws which pertain to and affect their operations.

Instruction: History of mutual savings banking; types of savings institutions; deposits, internal safeguards, and state supervision; organization and structure of the mutual savings banks; marketing; safe deposit, school savings, and new accounts departments; savings bank life insurance; payment problems; bank checks and money orders; Christmas clubs.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Banking, Business Administration, or Finance (8/76).

Supervision and Personnel Administration (Supervisory Management)

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1976—Present.

Objective: To provide the student with an understanding of the basic principles of supervision.

Instruction: Leadership; delegation; communication; motivation; training; employee interviewing; affirmative action plans; discipline; behavior correction; performance appraisal; position evaluation; conference leadership.

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Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Supervision (8/76).

Trust Functions and Services

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: August 1970—Present.

Objective: To provide the student with a basic and fundamental knowledge of the principles and policies underlying the various fiduciary services offered by financial institutions.

Instruction: Survey of all important services and functions of a trust department in a financial institution. Property and property rights; wills; settlement of estates; responsibilities of executors, administrators, and trustees; personal agencies; corporate agencies; employee trusts; pension trusts; community and institutional trusts and agencies.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Banking or Business Law (8/76).

AMERICAN INSTITUTE OF BANKING BUFFALO CHAPTER

The Buffalo Chapter of the American Institute of Banking (AIB) provides academic and professional courses in contemporary areas of banking activity for employees of 23 banking institutions in western New York. Day and evening instruction is provided.

The courses listed below constitute the majority of the offerings within the Chapter's Standard Certificate Program and the Graduate Study Program. These programs blend academic and technical banking curricula frequently not duplicated in collegiate or vocational institutions. Courses are offered in three major areas: Banking Functions, Management, and General Business. These courses are taught in classrooms provided by colleges located throughout the Buffalo area.

Please note that the credit recommendations listed below apply *only* to courses offered by the Buffalo Chapter of AIB.

Source of official student records: Educational Administrator, American Institute of Banking, 310 Marine Trust Building, 237 Main Street, Buffalo, New York 14203.

Accounting I (ACC 110)

Length: 45 hours (15 weeks).

Dates: January 1965—Present.

Objective: To provide the student with an understanding of the fundamentals of accounting theory and practice.

Instruction: Fundamentals of accounting theory; accounting records; financial statements; banking procedures; reconciliations; special journals.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Accounting (2/75).

Accounting II (ACC 111)

Length: 45 hours (15 weeks).

Dates: January 1965—Present.

Objective: To provide the student with an advanced understanding of the principles and practices of accounting.

Instruction: Continuation of Accounting I (ACC 110). Partnership and corporate organization; department accounting; inventory; fixed assets and depreciation; accrual bases of accounting and adjustment.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Accounting (2/75).

Agriculture Finance (FIN 532)

Length: 45 hours (15 weeks).

Dates: January 1969—December 1971.

Objective: To familiarize the student with the characteristics of agriculture as an industry and with the principles and practices used in the extension of credit to farmers.

Instruction: Livestock and poultry financing; crop financing; capital loans; agribusiness; management of the farm loan portfolio; business development; sources of agricultural information.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Agricultural Economics (1/75).

Analyzing Financial Statements (ACC 112)

Length: 45 hours (15 weeks).

Dates: January 1965—Present.

Objective: To provide the student with an understanding of the characteristics of financial statements and procedures of analysis.

Instruction: The principles and policies involved in the appraisal of credit risks by analysis of accounting statements of financial condition. Concepts, characteristics, and tools of financial statements; financial statement analysis (ratio analysis, liquidity analysis, and earnings analysis); balance sheets and operating statements; tests used in appraising financial statements of various industries as a basis for credit.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Accounting, Economics, or Finance (2/75).

Bank Management by Objectives (MGT 504)

Length: 20 hours (8 weeks).

Dates: January 1970 – Present.

Objective: To provide the student with an understanding of the principles of management by objectives.

Instruction: Basic concepts of management by objectives using the case method approach. (Prerequisite: a course in management organization theory or the equivalent.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Business Administration or Management (2/75).

Bank Public Relations and Marketing (BUS 226)

Length: 45 hours (15 weeks).

Dates: January 1968 – Present.

Objective: To provide the student with an understanding and appreciation of the public relations and marketing function in banking.

Instruction: The basics of internal and external bank public relations. Function and structure of bank public relations and marketing; staff; internal communications; publicity; advertising; marketing; selling; the officer call program; community relations; relations with competitors.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Marketing or Public Relations (1/75).

Business Communication by Letter and Memo (ENG 403)

Length: 45 hours (15 weeks).

Dates: January 1970 – Present.

Objective: To enable the student to write professional letters and memos.

Instruction: Fundamental writing skills and principles as applied to modern business correspondence. Letters of refusal; credit refusals; sales letters; collection letters; business memos.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Communications (2/75).

Business Math (BUS 122)

Length: 45 hours (15 weeks).

Dates: January 1971 – Present.

Objective: To provide the student with a background for the solution of business problems by mental and longhand computation.

Instruction: Basic application of mathematics to business problems. Personal banking records; inventory and turnover; charges for credit; sales activities and records; depreciation; discount and interest; promissory notes; interest variables; securities transactions. Workbook exercises are used with each lesson.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration (2/75).

Commercial Lending (FIN 539)

Length: 30 hours (12 weeks).

Dates: October 1973 – Present.

Objective: To teach the student management skills in the lending procedure.

Instruction: The loan interview; loan decisions and techniques; documentation for the credit file; problem loans; managing the loan portfolio. Course material is presented through workshops and case study problems.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Banking, Finance, or Management (1/75).

Corporate Finance (FIN 531)

Length: 45 hours (15 weeks).

Dates: January 1973 – Present.

Objective: To develop an understanding of the ways in which businesses finance their incorporation and continuing operations.

Instruction: The nature, functions, and management of the corporation; sources of financing; efficient utilization of funds by corporations; management of assets and liabilities; cost of capital; capital structure, present value, and capital budgeting; consideration of external economic forces that influence the corporation finance process. Emphasis on qualitative and quantitative tests as applied to corporate financial performance.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Finance (2/75).

Credit Administration (FIN 534)

Length: 45 hours (15 weeks).

Dates: January 1971 – Present.

Objective: To provide the student with a basic understanding of credit administration.

Instruction: The principles of credit and loan administration. Working capital loans; secured loans; term loans; real estate loans; credit investigation; the responsibilities of the bank lending officer.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Banking, Finance, or Management (1/75).

Effective English for Business Communication (ENG 401)

Length: 45 hours (15 weeks).

Dates: January 1970 – Present.

Objective: To enable the student to develop effective communications skills.

Instruction: Development of skills necessary to master effective business communication. Correct grammatical usage; transactional analysis; mass communications; sales messages.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Communications (2/75).

Effective Speaking (ENG 402)

Length: 45 hours (15 weeks).

Dates: January 1965 – Present.

Objective: To enable the student to develop effective oral communication skills.

Instruction: The acquisition of basic skills and confidence needed to speak effectively; introduction to the behavioral principles underlying effective oral communications. The organization of content; building self-confidence and poise; the use of body and voice mechanisms as effective tools of thought communication. Instructor/group discussion and evaluation are used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Communications or English (2/75).

Fundamentals of Bank Data Processing (BUS 123)

Length: 45 hours (15 weeks).

Dates: January 1968 – Present.

Objective: To provide the student with the basic concepts of electronic data processing with special reference to bank automation.

Instruction: Survey of data processing and computer concepts; punched card data processing equipment and programming; data recording, storage, processing, input, and output; computer programming (flowcharting and coding). A visit is made to a Bank Data Processing Center to observe the work flow and operation of punched card and computer equipment.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Electronic Data Processing (2/75).

Home Mortgage Lending (FIN 235)

Length: 45 hours (15 weeks).

Dates: January 1968 – Present.

Objective: To provide the student with an overview of the home mortgage investment area of savings and commercial banks; to provide an understanding of the mortgage market and the operations of the mortgage department.

Instruction: An introduction to the mortgage field; the mortgage market; the mortgage portfolio; appraisal; credit analysis; legal aspects; the processing and servicing of the mortgage.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Banking or Finance (1/75).

Instalment Credit (FIN 236)

Length: 45 hours (15 weeks).

Dates: January 1968 – December 1976.

Objective: To provide the student with basic knowledge of instalment credit and its administration.

Instruction: Instalment credit; the techniques of instalment lending; establishing credit; obtaining and checking information; servicing the loan and collecting the amounts due; inventory financing; special loan programs; business development and advertising; the public relations aspect of instalment lending.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Banking or Finance (1/75).

1. Instalment Credit I
2. Instalment Credit II

Length: 1. 45 hours (15 weeks).
2. 45 hours (15 weeks).

Dates: September 1977 – Present.

Objective: To provide the student with basic knowledge of instalment credit and its administration.

Instruction: Instalment credit; the techniques of instalment lending; establishing credit; obtaining and checking information; rate structure and yield analysis; servicing the loan and collecting amounts due; special loan programs; marketing instalment credit.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Banking or Finance (5/77). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

International Banking (ECO 243)

Length: 45 hours (15 weeks).

Dates: January 1969 – Present.

Objective: To provide the student with an understanding of the fundamental concepts of international banking, the services performed by the international departments of commercial banks, and the operation of global credit.

Instruction: The world of international banking; organization and major operations of international departments of commercial banks; credit instruments; principles of international credit agencies.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Economics or Finance (1/75.)

Introduction to Bank Management (MGT 303)

Length: 45 hours (15 weeks).

Dates: January 1968 – Present.

Objective: To provide the student with an understanding of the philosophy and organization of bank management and its place in society.

Instruction: Bank organization, operations, and management from the perspective of management. Planning; staffing; controlling; source and use of bank funds; the loan portfolio; the trust function; the bank industry in relation to regulatory agencies and society.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Business Administration or Management (2/75).

Introduction to Business (BUS 121)

Length: 45 hours (15 weeks).

Dates: January 1970 – Present.

Objective: To provide the student with an overview of business organizations in a free enterprise system.

Instruction: A general overview of the types and structures of business organizations; the marketing function; the legal and regulatory environment; business and society; personnel administration and labor relations; production and finance.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration (2/75).

Law and Banking (BUS 124)

Length: 45 hours (15 weeks).

Dates: January 1971 – Present.

Objective: To provide the student with the basic concepts of business law as applied to the banking industry.

Instruction: Introduction to law and the Uniform Commercial Code. Jurisprudence; the court system; contracts; property torts; agencies; partnerships; corporations; sales of property; commercial paper; bank deposits.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Business Administration or Law (2/75).

Lending I & II (FIN 536)
(Formerly Practical Lending and Credit)

Length: 36 hours (12 weeks).

Dates: February 1972 – Present.

Objective: To present a case study approach to commercial loan analysis.

Instruction: Commercial loan principles and operations; credit and credit policy; analysis of financial statements; ratios and comparative analysis; analysis of the ability to generate cash.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Finance (1/75).

Loan and Discount (FIN 237)

Length: 45 hours (15 weeks).

Dates: October 1974—Present.

Objective: To train bank personnel in the function performed by the discount (note) teller.

Instruction: Essential elements of the loan and discount function. Promissory notes; discounting commercial paper; guarantees; collateral agreements; notes secured by stocks, bonds, and savings accounts passbooks; the concepts of attachments perfection, priority, default, and foreclosure.

Credit recommendation: In the vocational certificate category, 3 semester hours in Banking (1/75).

Management Policies for Commercial Banks (MGT 511)

Length: 48 hours (12 weeks).

Dates: January 1974—Present.

Objective: To provide the student with an understanding of the concepts, functions, and structure of the banking organization in relation to policy formulation.

Instruction: Determination of the function and structure of commercial banking. Risk; capital management; deposit and liquidity management; lending and investment function; auditing; personnel function; marketing and management of commercial bank funds. A computerized commercial bank management simulation game is part of the course.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Business Administration or Management (2/75).

Managerial Accounting (ACC 513)

Length: 45 hours (15 weeks).

Dates: January 1972—Present.

Objective: To provide the student with an understanding of the interpretation of accounting data in the planning and managing of business activities.

Instruction: Structure, concepts, and process of accounting; preparation, analysis, and use of financial statements; techniques for measuring assets, liabilities, equity, income, and expenses; use of accounting data for budgetary planning and control systems.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Accounting or Business Administration (2/75).

Money and Banking (ECO 143)

Length: 45 hours (15 weeks).

Dates: January 1967—Present.

Objective: To provide the student with an understanding and appreciation of the function of money, credit, and the banking system in a modern economy.

Instruction: Basic monetary theory. Currency; the banking process; the Federal Reserve System; money and the national income; business cycles; monetary and fiscal policies.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Economics (2/75).

Negotiable Instruments

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1977—Present.

Objective: To provide an overview of the legal aspects of negotiable instruments used in bank deposits, collection operations, and payment.

Instruction: Legal aspects of bank operations; commercial paper; check processing and collection; alternative payment mechanism. (Prerequisites: Principles of Bank Operations and Law and Banking, or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Banking (5/77).

Practical Lending and Credit (FIN 536)

Refer to Lending I & II (FIN 536).

Principles and Techniques of Management (MGT 506)

Length: 16 hours (8 weeks).

Dates: January 1973—Present.

Objective: To provide the student with an understanding of management organization and theory in relation to techniques of setting performance standards and conducting the appraisal interview.

Instruction: Management theory in relation to writing position descriptions, setting standards of performance, and the performance appraisal interview. Course is designed around case problems, role playing, filmed case studies, and filmed and live lectures.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the

upper division baccalaureate category, 1 semester hour in Business Administration or Management (2/75).

Principles of Bank Operations (BNK 101)

Length: 45 hours (15 weeks).

Dates: January 1966 – Present.

Objective: To provide the student with an understanding of the nature and purpose of the various functions of bank operations.

Instruction: Broad perspective of banking operations necessary for career planning and development. The economic importance of banks; bank services; the operations of a bank; government regulations.

Credit recommendation: In the vocational certificate category, 3 semester hours in General Business (1/75).

Principles of Bank Operations Advanced (BNK 504)

Length: 30 hours (15 weeks).

Dates: January 1973 – Present.

Objective: To provide the beginning banker with a broad perspective of banking operations necessary for career development.

Instruction: Accelerated version of Principles of Bank Operations (BNK 101) designed for the management trainee. The economic importance of banks; the receiving function; bookkeeping operations; collection services; legal relations with depositors; negotiable instruments; savings and time deposit function; management of bank funds; internal controls; commercial bank services.

Credit recommendation: In the vocational certificate category, 2 semester hours in General Business (1/75).

Principles of Economics I (Macro) (ECO 141)

Length: 45 hours (15 weeks).

Dates: January 1971 – Present.

Objective: To provide the student with an understanding of economic principles necessary to develop an appreciation of modern fiscal and monetary problems.

Instruction: Principles of macroecnomic theory. The economic system; gross national product; employment and fiscal policy; money; banking; monetary policy.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Economics (2/75).

Principles of Economics II (Mjcro) (ECO 142)

Length: 45 hours (15 weeks).

Dates: January 1975 – Present.

Objective: To provide the student with a more detailed knowledge of economics with emphasis on smaller units within the economic system.

Instruction: Principles of microecnomics. Supply and demand; determination of output and prices; current American economic problems; introduction to international economics (determination of currency, rates of exchange, and comparisons among systems).

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Economics (2/75).

Principles of Real Estate (FIN 540)

Length: 30 hours (15 weeks).

Dates: January 1973 – Present.

Objective: To provide the student with a sound foundation in real estate theories and practices.

Instruction: Introduction to real estate theories and practices. The real estate market; contracts; property ownership; financing; brokerage; valuation; government operations and urban development.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Business Administration (2/75).

Principles of Real Estate Appraisal (FIN 541)

Length: 30 hours (15 weeks).

Dates: January 1974 – Present.

Objective: To provide the student with basic knowledge of real estate valuation.

Instruction: Introduction to real estate appraising. Cost, market, and income approaches to value; preparing the appraisal report.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Business Administration (2/75).

Principles of Savings Bank Operations (BNK 102)

Length: 45 hours (15 weeks).

Dates: January 1970 – Present.

Objective: To provide savings bank employees with an overview of the functions and operations of savings banks.

Instruction: Fundamental savings bank operations. The economic function; differences among financial institutions; role of the savings bank; organization and structure.

Credit recommendation: In the vocational certificate category, 3 semester hours in General Business (1/75).

Principles of Supervision and Management (MGT 302)

(Formerly Supervision and Personnel Administration).

Length: 45 hours (15 weeks).

Dates: January 1965 – Present.

Objective: To provide the student with an understanding of the basic principles of supervision and administration.

Instruction: Organizational structure; human relations aspects of the supervisory role; communications; recruitment and selection; orientation of the new employee; training and development; motivation; handling of grievance procedures; reports; salary administration and operation.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Business Administration or Management (2/75).

Savings and Time Deposit Banking (BNK 201)

Length: 45 hours (15 weeks).

Dates: January 1968 – Present.

Objective: To introduce the student to the significance of savings and time deposits in the financial field.

ship to the economy. The various forms of savings; the impact of interest rates; the role of savings institutions; asset management policies; regulatory agencies; current problems and issues.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Finance (1/75).

Savings Bank Life Insurance (BNK 506)

Length: 16 hours (8 weeks).

Dates: October 1971 – Present.

Objective: To prepare students for the New York State Life Insurance Examination necessary to be licensed; to provide the student with a fundamental understanding of the life insurance industry.

Instruction: Principles of life insurance. Types of life insurance; policy contracts; nonforfeiture; settlement options; legal aspects; types of insurance plans; the need for qualified advice.

Credit recommendation: In the vocational certificate category, 1 semester hour in Insurance (1/75).

Supervision and Personnel Administration (MGT 302)

Refer to Principles of Supervision and Management.

Trust Functions and Services (BNK 503)

Length: 30 hours (15 weeks).

Dates: January 1971 – Present.

Objective: To provide the student with an understanding of the services rendered by institutions engaged in the trust business; to provide an introduction to the functions and services of a corporate fiduciary.

Instruction: Historical background of trust services and institutions; government supervision; specific service functions (property, wills, estates, employee trust, pension trust, institutional trust).

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Banking or Business Law (1/75).

AMERICAN INSTITUTE OF BANKING
NASSAU COUNTY CHAPTER

The Nassau County Chapter of the American Institute of Banking (AIB) provides academic and professional courses in banking for employees of 57 banking institutions in Nassau County.

The courses listed below constitute offerings within the Chapter's Basic, Standard, and Advanced Certificate programs. These programs combine academic and technical banking curricula frequently not duplicated in collegiate or vocational institutions. Courses are offered in three major areas: Foundations of Banking, Banking Functions, and Management and Supervision. These courses are taught in evening sessions in classrooms at Hofstra University.

Please note that the credit recommendations listed below apply *only* to courses offered by Nassau County Chapter of AIB.

Source of official student records: Educational Director, American Institute of Banking, P.O. Box 156, Garden City, New York 11530.

Accounting: Principles and Applications, Part One

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: January 1966—Present.

Objective: To provide basic knowledge in accounting principles and procedures.

Instruction: Analysis of transactions; the accounting cycle; special journals and ledgers; end-of-cycle procedures; payroll and control systems; payables and receivables; valuation of other assets; taxes; completion of accounting cycle.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Accounting (9/75).

Accounting: Principles and Applications, Part Two

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: January 1966—Present.

Objective: To provide advanced knowledge of accounting principles and procedures.

Instruction: Continuation of Accounting: Principles and Applications, Part One. Departmental accounting; partnership accounting cycle; branch and home office accounting; corporate accounting; manufacturing and cost accounting; budgeting, reporting, and statement analysis; review of basic concepts. (Prerequisite: Accounting: Principles and Applications, Part One).

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Accounting (9/75).

Analyzing Financial Statements

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: September 1966—Present.

Objective: To provide the student with an understanding of the characteristics of financial statements and procedures of analysis.

Instruction: The principles and policies involved in the appraisal of credit risks by analysis of accounting statements of financial condition. Concepts, characteristics, and tools of financial statements; financial statement analysis (ratio analysis, liquidity analysis, and earnings analysis); balance sheets and operating statements; tests used in appraising financial statements of various industries as a basis for credit. (Prerequisite: Accounting: Principles and Applications, Part One.)

Credit recommendation: In the lower division

baccalaureate/associate degree category, 2 semester hours in Banking or Finance (5/76).

Bank Letters and Reports

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: September 1966—Present.

Objective: To improve the quality of business writing with emphasis on bank correspondence.

Instruction: Fundamental language skills and principles underlying modern correspondence, with application to bank letters, memos, and reports. Considerable practice in writing is followed by critical analysis.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Communications (5/76).

Bank Management

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: January 1966—Present.

Objective: To provide a working knowledge of the new aspects of bank management.

Instruction: Nature and objectives of banking; formulation of objectives and policies; organizational planning; staffing of the organizational structure; management controls; the deposit function; employment of bank funds; the loan function; the bank investment account; the trust function and other service functions; current banking issues; the art of management. Case studies in bank management are used.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Banking or Finance (9/75).

Business Mathematics

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: January 1966—Present.

Objective: To provide knowledge of the fundamentals of business mathematics.

Instruction: Arithmetic tools; business documents; payrolls; statistical data and graphs; depreciation; simple interest; time value of money; mathematics of compounding.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Mathematics (9/75).

Credit Administration

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: January 1966—Present.

Objective: To provide the student with knowledge of the factors influencing and determining loan policy.

Instruction: Practice and principles of credit administration; methods of credit investigation and analysis; credit techniques; specific credit problems; regular and unusual types of loans.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Banking or Finance (9/75).

Effective Speaking

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: September 1966—Present.

Objective: To enable the student to develop effective oral communication skills.

Instruction: The acquisition of basic skills and confidence needed to speak effectively; introduction to the behavioral principles underlying effective oral communications. The organization of content; building self-confidence and poise; the use of body and voice mechanisms as effective tools of thought communication. Instructor/group discussion and evaluation are used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Communication or Speech (5/76).

Fundamentals of Bank Data Processing

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: September 1966—Present.

Objective: To provide the student with the basic concepts of electronic data processing with special reference to bank automation.

Instruction: Survey of data processing and computer concepts as applied to banks; punched card data processing equipment and programming; data recording, storage, processing, input, and output; computer programming (flowcharting and coding). A visit is made to a Bank Data Processing Center to observe the work flow and operation of punched card and computer equipment.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester

hours in Business Data Processing or Electronic Data Processing (5/76).

Home Mortgage Lending

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: September 1966—Present.

Objective: To provide the student with an understanding of the home mortgage investment area of savings and commercial banks.

Instruction: The mortgage market; acquisition of a mortgage portfolio; mortgage plans and procedures; mortgage loan processing and servicing; overall portfolio management. The course is presented from the viewpoint of the mortgage loan officer.

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Banking or Finance (5/76).

Instalment Credit

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: January 1966—Present.

Objective: To provide an introduction to instalment credit and its administration.

Instruction: Techniques of instalment lending (establishing the credit, obtaining and checking information, servicing the loan, and collecting amounts due); discussion of inventory financing, special loan programs, business development and advertising, and the public relations aspect of instalment lending.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Banking or Finance (9/75).

Law and Banking

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: September 1966—Present.

Objective: To provide the student with the basic concepts of business law as applied to the banking industry.

Instruction: Introduction to the rules of law which underlie banking. Jurisprudence; the court system and civil procedure; contracts; quasi-contracts; property; torts and crimes; agencies; partnerships; corporations; sales of property; commercial paper; bank deposits and collections; documents of title; secured transactions. Emphasis is on the Uniform Commercial Code.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration or Business Law (5/76).

Marketing for Bankers

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: September 1970—Present.

Objective: To broaden the student's concepts of marketing, its philosophy and framework, especially as they pertain to banking.

Instruction: Fundamental concepts and philosophy of marketing; marketing information and research; product distribution, promotion, and pricing strategies; market planning.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in General Business or Marketing (5/76).

Money and Banking

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: January 1966—Present.

Objective: To provide basic background to the practical aspects of money and banking, with emphasis on basic monetary theory.

Instruction: Economic stabilization; types of spending; the role of gold; limitations of central bank control; government fiscal policy; balance of payments; foreign exchange; the effect of the above on the yield curve and the structuring of portfolios.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Money and Banking (9/75).

Principles of Bank Operations

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: January 1966—Present.

Objective: To provide new bank employees with an understanding of the fundamentals of bank operations.

Instruction: Survey of bank functions and operations. Teller operations; savings and time deposits; bookkeeping operations; loans and investments; determination of service charges; legal relationships with depositors.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the

upper division baccalaureate category, 2 semester hours in Banking, Business Administration, Economics, or Finance (9/75).

Principles of Economics

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: January 1966—Present.

Objective: To provide background in principles of macroeconomics.

Instruction: Overview of economic institutions; basic principles of market pricing; discussion of managerial economics; national income; monetary policy; economics as a social science.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Economics (9/75).

Psychology

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: September 1975—Present.

Objective: To provide an introduction to the principles of psychology.

Instruction: Examination of the various stages of human growth, including the study of learning, perception, personality development, and motivation.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Psychology (5/76).

Savings Bank Organization

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: January 1966—Present.

Objective: To provide savings bank employees with an overview of mutual savings banking.

Instruction: History and purpose of savings banks; the trustee concept; departmental operations; rules and regulations of the banking department and the Federal Deposit Insurance Corporation; new accounts, savings department, and safe deposit operations (teller's work, payment problems, on-line computer accounting, payment of intere[illegible] and safe deposit rules); auditing and accounting operations; mortgage department; investment department.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Banking, Business Administration, Economics, or Finance (9/75).

Supervision

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: September 1969—Present.

Objective: To provide the student with an understanding of the basic principles of supervision and administration.

Instruction: Organizational structure; human relations aspects of the supervisory role; communications; recruitment and selection; orientation of the new employee; training and development; motivation; handling of grievance procedures; reports; salary administration and operation.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Business Administration or Management (5/76).

Trust Functions and Services

Location: Hofstra University, Hempstead, NY.

Length: 45 hours (14 weeks).

Dates: September 1974—Present.

Objective: To provide the student with an understanding of the services rendered by institutions engaged in the trust business; to provide an introduction to the functions and services of a corporate fiduciary.

Instruction: Historical background of trust services and institutions; government supervision; specific service functions (property, wills, estates, employee trust, pension trust, institutional trust).

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Banking, Business Law, or Finance (5/76).

AMERICAN INSTITUTE OF BANKING
NEW YORK CITY CHAPTER

The New York City Chapter of the American Institute of Banking (AIB) provides academic and professional courses and programs for an adult population composed of employees of approximately 100 banking institutions in New York City. Day and evening instruction is provided in contemporary areas of banking activity.

The courses listed below constitute the Chapter's Standard Program. This program combines academic and technical banking curricula frequently not duplicated in collegiate or vocational institutions. Five specialized areas of study designed for those seeking broad professional banking career development are offered: Commercial, Savings, International Banking, Trusts, and Banking Operations. Courses are taught in the AIB classrooms located at 233 Broadway in New York City, at nearby Pace University, or in facilities provided by banks in the city.

Please note that the credit recommendations apply *only* to courses offered by the New York City Chapter of AIB.

Source of official student records: Office of the Registrar, American Institute of Banking, 233 Broadway, New York, New York 10007.

Accounting Principles

Length: 30 hours (15 weeks).

Dates: September 1963—Present.

Objective: To provide the student with a basic understanding of accounting terminology, concepts, and practices, especially in reference to basic financial documents of business and banking.

Instruction: Fundamentals of accounting theory and practice. Theory of debit and credit; classification of accounts; principles underlying accounting records; business papers and documents used as the basis of original entry; preparation of balance sheets and income statements; principles and problems of controlling accounts of individual proprietorships and partnerships. Laboratory assistants aid students in completing homework assignments.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Accounting or Finance (5/74).

Bank Accounting

Length: 30 hours (15 weeks).

Dates: September 1963—Present.

Objective: To provide the student with basic knowledge of the series of accounting controls that are used for effective internal management of a commercial bank.

Instruction: Principles of accounting as applied to specific functional organizational and operational situations in a commercial bank; effect of accounting requirements on the operating system of a bank; impact of new technology on traditional accounting procedures; bank income and expense accounting; bank costs and the development of internal controls in the accounting routines of a bank.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Accounting (5/74).

Bank Audit and Internal Controls

Length: 30 hours (15 weeks).

Dates: September 1963—Present.

Objective: To provide the student with an understanding of good audit practices in effective bank management.

Instruction: Organizing a bank for maximum protection; commercial bank and savings bank internal control and auditing procedures; bank frauds (both nonconcealed and concealed); EDP auditing and internal controls. Case studies of fraud and its detection are utilized.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Accounting (5/74).

Bank Data Processing Fundamentals

Length: 30 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To provide the student with basic knowledge of data processing concepts and applications of the computer, with specific reference to the role of automation in banks.

Instruction: Survey of data processing concepts; punched card data processing equipment and programming; computer concepts (data recording, storage, processing, input and output); computer programming (flow charting and coding). A visit to a Bank Data Processing Center is made to observe the work flow and operation of punched card and computer equipment.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Electronic Data Processing (5/74).

Business Conference Speech

Length: 30 hours (15 weeks).

Dates: September 1968 – Present.

Objective: To provide the student with the opportunity to develop effective business communication skills.

Instruction: The acquisition of basic skills and confidence needed to speak effectively; introduction to the behavioral principles underlying effective oral communications. The organization of content; building self-confidence and poise; the use of body and voice mechanisms as effective tools of thought communication. Instructor/group discussion and evaluation are used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Business Communications or Speech (5/74).

Business Psychology

Length: 30 hours (15 weeks).

Dates: September 1969 – Present.

Objective: To provide the student with an understanding of the role of self, other workers, and work groups in a labor-intensive white collar industry such as banking.

Instruction: General orientation to the field of psychology as applied to business. Self-improvement and work efficiency; human relationships; motivation; leadership; employee counseling, training, and individual mental health.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Applied Behavioral Sciences (5/74).

Business Writing

Length: 30 hours (15 weeks).

Dates: September 1972 – Present.

Objective: To provide the student with skill in writing English, with specific emphasis given to business letters, memoranda, and reports.

Instruction: Continuation of the English course listed below. To strengthen mastery of writing skills with the overall goal that such skills be appropriately employed within the context of concise, well-planned business letters, memoranda, and reports. Regular written exercises are used to develop the necessary logical, concise, and orderly habits.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Business Communications (5/74).

College Mathematics for Business

Length: 30 hours (15 weeks).

Dates: September 1969 – Present.

Objective: To provide the student with skills in business arithmetic and accounting terminology and concepts in preparation for the course in Accounting Principles.

Instruction: Basic application of mathematics examined to develop a working knowledge of personal banking records; inventory and turnover; charges for credit; sales activities and records; depreciation; discount and interest; promissory notes; interest variables; securities transactions. Workbook problems are used with each lesson.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Business Mathematics (5/74).

Commercial Bank Organization

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: Within a basic academic program in commercial banking, to provide the student with a fundamental course which presents terminology, documents, and processes of the commercial bank as well as a historical and organizational overview of commercial banking.

Instruction: Overview of the services and functions of a commercial bank through a study of its components and controls. The banking function; history and development of the commercial banking system; deposit and payment function; loans and investments; other services (money management, international, fiduciary, computerized payroll, and billing); the Federal Reserve System; governmental supervision.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Banking, Economics, or Finance (5/74).

Commercial Letters of Credit

Length: 30 hours (15 weeks).

Dates: September 1969—Present.

Objective: To provide the student with knowledge of the use of the commercial letter of credit in International Banking and Metropolitan Banking.

Instruction: Comprehensive view of letters of credit, their purposes, functions, and methods of operation as currently handled in the international departments of banks; import credit; export credit; government credits; refinancing and acceptances. The topic is approached in the framework of the day-to-day processing of letters of credit by banks.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Banking, Business Administration, Economics, or Finance (5/74).

Consumer Credit

Length: 30 hours (15 weeks).

Dates: September 1963—Present.

Objective: To introduce the student to marketing concepts and to develop a critical knowledge of consumer credit practices in general and in New York City specifically.

Instruction: History, techniques, operating costs, and present competitive position of each of the principal types of consumer credit institutions; personal loan departments of banks, loan companies, credit unions; qualifications of a good credit risk; techniques of loan interviews and the development of credit information; investigation and the credit decision; collection procedures; business development.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Finance or Money and Banking (5/74).

Corporate Trust Administration

Length: 30 hours (15 weeks).

Dates: September 1963—Present.

Objective: To provide the student with practical and conceptual knowledge of the functions, responsibilities, and operations of current corporate trust banking activities.

Instruction: Review of corporate financial principles and practice; use of capital financing instruments; establishment of corporate trusts and issuance of bonds; administration of corporate trusts, before and after default; corporate agency appointments, other than transfer agent and registrar; bond operation practices and procedures.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Finance or Money and Banking (5/74).

Corporation Accounting Principles

Length: 30 hours (15 weeks).

Dates: September 1963—Present.

Objective: To provide students with an understanding of corporation accounting principles in preparation for required courses in specialized areas of study.

Instruction: Fundamentals of accounting theory and practice of the corporation, especially industrial and commercial. Problems of opening, adjusting, and closing corporate books; capital stock; corporate earnings; investments; bonds; notes; appropriation of retained earnings. Consideration of other stockholders' equity accounts and transactions, of organization for control, and interpretation from the management viewpoint.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Accounting or Finance (5/74).

Corporation Finance

Length: 30 hours (15 weeks).

Dates: September 1963—Present.

Objective: To develop a comprehensive understanding of the ways in which business corporations finance their incorporation and continuing daily operations.

Instruction: The nature, functions, and management of the corporation; sources of financing; efficient utilization of funds by corporations; management of assets and liabilities; cost of capital; capital structure, present value, and capital budgeting; consideration of external economic forces that influence the corporation finance process. Emphasis on qualitative and quantitative tests as applied to corporate financial performance.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Finance (5/74).

Credit Administration

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To provide the student with an understanding of the fundamentals of credit and loan administration.

Instruction: Study of the credit and loan function in the context of overall banking operations. Lending types and techniques; methods of credit investigation; sources of credit information; credit techniques; credit correspondence; types of bank loans.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Banking or Finance (5/74).

Economic Principles

Length: 60 hours (30 weeks).

Dates: September 1963 – Present.

Objective: To provide the student with a framework of knowledge of the economic principles upon which more discrete banking systems and practices are later examined.

Instruction: A two-semester survey of the major principles, institutions, and problems of our economic system today. The first semester covers macroeconomics, and the second semester covers microeconomics. Particular emphasis given to the development of economic institutions, national income analysis, comparative economics, economics of the marketplace, and present-day economic problems as forces in understanding the economic system; additional focus on the operation of the international economy.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Economics (5/74).

Employee Benefit Trust Administration

Length: 30 hours (15 weeks).

Dates: September 1973 – Present.

Objective: To provide the student with knowledge of the procedures and regulations relating to the various employee benefit trusts.

Instruction: Detailed coverage of the various aspects of employee benefit trusts. The establishment of pensions; profit sharing; thrift and savings plans; stock bonus trusts; trusts for self-employed (HR-10); procedures for establishing and regulating such trusts; trends in employee benefit plans; the duties and powers of trustees; role of the actuary; employee benefit trust investment.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Finance or Money and Banking (5/74).

English

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To enable the student to develop skill in comprehension and use of grammatical concepts and in the development of themes that clearly and accurately express his or her intention.

Instruction: Initial diagnostic testing of students identifies specific problem areas (usually grammar, usage, spelling, vocabulary, punctuation) and determines the amount of attention to be devoted to each topic. Techniques of organizing paragraphs and themes and of effective presentation are developed. Writing samples indicate degree of progress throughout the course.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in English (Communications Skills) (5/74).

Estate and Trust Administration

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To provide the student with knowledge of the basic elements of estate administration and the fundamental concepts of personal trusts and their administration.

Instruction: Intestacies, wills, and probates of wills; marshaling of assets; payments of debts; claims and legacies; distribution of assets; accountability of executors and administrators; creation of trusts; duties, powers, and limitations of fiduciaries; powers of appointment; termination of trusts; common trust funds.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Finance or Money and Banking (5/74).

Financial Statement Analysis

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To develop in the student fundamental knowledge of corporate credit analysis according to the standards and practices of New York City banks.

Instruction: The principles and policies involved in the appraisal of credit risks by analysis of accounting statements of financial condition. Concepts, characteristics, and tools of financial statements; financial statement analysis (ratio analysis, liquidity analysis, and earnings analysis); balance sheets and operating statements; tests used in appraising the financial statements of various industries as a basis for credit.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Banking or Finance (5/74).

Foreign Exchange Operations

Refer to Foreign Exchange Theory and Practice.

Foreign Exchange Theory and Practice

(Formerly Foreign Exchange Operations)

Length: 30 hours (15 weeks).

Dates: September 1969 – Present.

Objective: To familiarize the student with the workings of the world's various foreign exchange systems and the fundamental workings of the foreign exchange market as related to the daily operations of a money center bank's foreign exchange department.

Instruction: Organization of the foreign exchange market (hedging, interest arbitrage, and the method of dealing with the exchange problems confronting the bank's client); functions and organization of foreign exchange accounting.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Banking, Business Administration, Economics, or Finance (5/74).

Human Factors in Banking

Refer to Human Relations in Bank Work.

Human Relations in Bank Work

(Formerly Human Factors in Banking)

Length: 30 hours (15 weeks).

Dates: September 1969 – Present.

Objective: To provide the student with an understanding of the various organizational factors and procedures that determine career growth and progress in banking.

Instruction: Growth and history of the human relations concept; the supervisor's job; leadership and its effects on employees; motivation and job advancement; training new employees; self-development and development of others; problem solving.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Applied Behavioral Science (5/74).

International Banking Operations

(Formerly International Department Operations)

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To provide the student with a fundamental survey course as an introduction to the area of International Banking.

Instruction: Basic survey dealing with the evolution of international banking in the United States, the instruments and documents used in foreign trade, and the various functions of an international banking department.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Banking, Business Administration, Economics, or Finance (5/74).

International Collections and Money Transfer

Length: 30 hours (15 weeks).

Dates: September 1969 – Present.

Objective: To provide the student with basic knowledge of NOSTRO and VOSTRO accounts as used in International Banking operations.

Instruction: Detailed coverage of the NOSTRO and VOSTRO bookkeeping functions; the funds transfer systems for both domestic and international money transfers; methods of handling documentary collections (inward and outward) and means of financing these collections.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Banking, Business Administration, Economics, or Finance (5/74).

International Department Operations

Refer to International Banking Operations.

Investment Principles

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To develop in the student objective and systematic knowledge of the forces, factors, and technical requirements utilized in formulating sound investment decisions.

Instruction: Selection of particular types of investments on the basis of needs, purposes, and financial status of each class of investor; mechanics of investment for each investor class; study of recognized quantitative and qualitative tests used in judging security values; legal and financial characteristics of various types of investment securities; daily economic and social forces that necessitate a continuing flexible approach in making investment decisions.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Finance (5/74).

Law of Commercial Instruments

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To provide the student with basic knowledge of the codified law in Articles 3 and 4, Uniform Commercial Code, with reference to the processing and collection responsibilities of financial institutions with commercial instruments.

Instruction: The rights and duties of parties to money instruments (checks, drafts, notes, and certificates of deposit) under Article 3 of the Uniform Commercial Code; the problems of financial institutions in the handling of commercial instruments in the collection process under Article 4 of the Uniform Commercial Code.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Law or Money and Banking (5/74).

Law of Contracts

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To provide the student with basic knowledge of the concepts and fundamentals of contractual relationships that are necessary to function effectively in a business environment.

Instruction: Introduction to the court system; development of legal systems and sources of law; function of contract law; elements essential to the creation, performance, and discharge of contracts.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Business Administration or Law (5/74).

Life Insurance

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To provide the student with a basic understanding of life insurance.

Instruction: Life insurance principles, structure, and practice as required of company agents and representatives by the New York State Insurance Department. Selection of risks; values and benefits; various types of policies; terms of the life insurance contract; sales features; life insurance as an investment; planned settlement of the life insurance estate.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Business Administration, Economics, Finance, or Life Insurance Principles (5/74).

Management Practice

(Formerly Management Training)

Length: 30 hours (15 weeks).

Dates: September 1969 – Present.

Objective: To provide the student with an understanding of the role and responsibilities of the manager of the work forces in financial institutions.

Instruction: Managerial organization, planning, and controlling, especially for first-level and middle-manager positions; job management; improvement of management methods; developing and maintaining the work team. Problem solving via case study is emphasized.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Management (5/74).

Management Training

Refer to Management Practice.

Marketing

Length: 30 hours (15 weeks).

Dates: September 1969—Present.

Objective: To provide the student with an understanding of new bank marketing strategies, as well as how each employee is a key factor in influencing various banking market approaches.

Instruction: Marketing concepts and marketing management responsibilities; market analysis; promotions; media; sales principles; marketing success in relation to internal banking functions.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Marketing (5/74).

Money and Banking

Length: Version 1: 60 hours (30 weeks).
Version 2: 30 hours (15 weeks).

Dates: Version 1: September 1963—December 1975.
Version 2: January 1976—Present.

Objective: To provide the student with indepth and realistic knowledge of the money and banking mechanism and of the general function performed by the banking mechanism within the total economic system.

Instruction: Version 1: Two semesters devoted to the nature and functions of money and the development of monetary standards, of the commercial banking structure and its unique money-creating function, of interest rate determinations, and of a commercial bank's earning assets. The Federal Reserve System in its monetary policy role; monetary policy vis-a-vis fiscal policy; international monetary functions and problems. Emphasis is placed on relating the course content to present-day monetary problems (inflation, devaluation, and international money flows). **Version 2:** Knowledge and appreciation of the role of financial institutions in the functioning of the U.S. economy are developed. The nature of money and the money supply; liquidity management; bank loans and investments; bank earnings and capital; the role of the Federal Reserve System.

Credit recommendation: Version 1: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Finance or Money and Banking (5/74). **Version 2:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Finance or Money and Banking (8/76).

Real Estate Mortgage Principles

Length: 60 hours (30 weeks).

Dates: September 1963—Present.

Objective: To provide the student with an understanding of the home mortgage investment area, which is of concern to both thrift institutions and commercial banks.

Instruction: An intensive two-semester survey course designed to familiarize the student with the legal and financial fundamentals of real estate investing and mortgage financing. Real estate ownership; transactions; title searches and closing; appraising; brokerage and investment.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Banking, Business Administration, Economics, or Finance (5/74).

Savings Bank Accounting

Length: 30 hours (15 weeks).

Dates: September 1963—Present.

Objective: To provide the student with a practical understanding of the internal accounting treatment of all transactions within a savings bank.

Instruction: The accounting treatment of transactions as they normally occur in the daily operations of a savings bank; accruals; reserves; accounting and statistical records; Banking Department and other reports; relationship and responsibilities of the accounting departments and management. Practical problems are used.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Accounting or Finance (5/74).

Savings Bank Life Insurance

Length: 30 hours (15 weeks).

Dates: September 1963—Present.

Objective: To provide the student with a practical understanding of life insurance sales, with specific reference to Savings Bank Life Insurance (SBLI) sales and service.

Instruction: Practical approach to Savings Bank Life Insurance and its relation to savings banking.

Product knowledge of SBLI; familiarity with plans offered; underwriting rules; limitations; rate book premium calculation; preparation of SBLI proposals; completion of applications.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Finance or Savings Bank Life Insurance (5/74).

Savings Bank Operations

Length: 30 hours (15 weeks).

Dates: September 1969 – Present.

Objective: To provide the student with an understanding of the internal operations of a savings bank and the external regulations surrounding the savings function in New York State savings banking at the present time.

Instruction: The departmental operations of the savings bank within the law, rules, and regulations of the New York Banking Department and the Federal Deposit Insurance Corporation. Tellers paying and receiving money; payment problems; recording of transactions and proving procedures; payment of interest; liquidity; bank operating expenses; accounting of all financial transactions through to the General Ledger; preparation of the Statement of Condition and the Profit and Loss statement; the auditing function throughout the bank; the effect of the investment policy; objectives of bank management.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Banking, Business Administration, Economics, or Finance (5/74).

Savings Banking Organization

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To provide the student with detailed knowledge of the operations, structure, and role of thrift institutions in the United States economy.

Instruction: Basic overview of mutual savings banking; history and types of thrift institutions; structure, markets, and sources of funds; rules and regulations under which savings banks operate.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Banking, Business Administration, Economics, or Finance (5/74).

Trust Department Services

Length: 30 hours (15 weeks).

Dates: September 1963 – Present.

Objective: To provide the student with basic and fundamental knowledge of the principles and policies underlying the various fiduciary services offered by financial institutions.

Instruction: Survey of all important services and functions of a trust department in a financial institution. Property and property rights; wills; settlement of estates; responsibilities of executors and administrators; personal agencies; corporate agencies; employee trusts; pension trusts; community and institutional trusts and agencies.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Money and Banking (5/74).

AMERICAN INSTITUTE OF BANKING
ROCHESTER CHAPTER

The Rochester Chapter of the American Institute of Banking (AIB) provides academic and professional courses in contemporary areas of banking activities for employees of 12 banking institutions in the Rochester Area.

The curriculum consists of foundation courses, banking function courses, management and supervision courses, and language and communication courses leading to a Basic, Standard, Advanced, or General Certificate in Banking. These programs blend academic and technical banking curricula frequently not duplicated in collegiate or vocational institutions.

Please note that the credit recommendations listed below apply *only* to courses offered by the Rochester Chapter of AIB.

Source of official student records: Office of Manager, American Institute of Banking, Room 816, 19 West Main Street, Rochester, New York 14614.

Accounting I

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To provide the student with an understanding of the introductory concepts and practices of accounting.

Instruction: Basic financial statements; setting up accounts; trial balance and worksheet; closing the books; cash receipts and disbursements journal; banking procedures; special journals; accounts receivable and payable ledger; depreciation and adjustments; classified statements; payroll.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Accounting (5/77).

Accounting II

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To provide the student with a more advanced knowledge of the concepts and techniques of financial accounting, including an explanation of how accounting can be used by managers in planning and controlling business activities.

Instruction: Departmentalizated accounting; partnership accounting; branch accounting; corporation accounting; manufacturing and cost accounting principles; statement analysis. (Prerequisite: Accounting I.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Accounting (5/77).

Analyzing Financial Statements

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To develop the student's knowledge of the analysis procedure used by financial institutions in determining the credit worthiness of a company.

Instruction: The principles and policies involved in the appraisal of credit risk through analysis of accounting statements of financial conditions; analysis of the balance sheet, profit and loss statement; the use of the worksheet in analysis; working capital analysis; accounts receivable analysis; inventory analysis; budget. (Prerequisite: Accounting I and Accounting II or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the

upper division baccalaureate category, 3 semester hours in Banking or Finance (5/77).

Bank Management

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To give the student a basic understanding of bank management decisions and their impact on customers, shareholders, and employees.

Instruction: The nature and objectives of banking; organizing, planning, staffing, and controlling; the deposit function; the employment of bank funds; the loan function; bank investments; current management issues.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Banking or Business Administration (5/77).

Basic Psychology

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1972 – Present.

Objective: To provide an introduction to the principles of psychology.

Instruction: Examination of the various stages of human growth and development; including learning, perception, personality development, and motivation.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Psychology (5/77).

Business Administration

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1976 – Present.

Objective: To provide the student with an understanding of business and the methods and procedures used in making business decisions, and a familiarity with business terminology.

Instruction: Business and society; ownership, organization, and management; marketing; finance; quantitative controls; legal and regulatory environment of business.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration (5/77).

Business Communication by Letter and Memo

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1974 – Present.

Objective: To enable the student to become more proficient at writing business letters, memos, and reports.

Instruction: Fundamental principles underlying modern business correspondence; types of letters; business reports; form letters; oral communication and effective listening; good will letters. (Prerequisite: Effective English or the equivalent.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration or Business Communication (5/77).

Business Financial Management (Management Finance)

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1977 – Present.

Objective: To develop in the student a comprehensive understanding of the ways in which businesses finance their initial and continuing daily operations.

Instruction: Determining the firm's need for financing; source of funds; flow of cash; financial analysis; evaluation; cost of funds; long-term financing; securities; bonds; leasing; using business funds; management of accounts receivable; investment in fixed assets; merger; reorganization and liquidation. (Prerequisites: Accounting I, Accounting II, and Principles of Economics.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Managerial Finance (5/77).

Business Math

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1970 – Present.

Objective: To provide the student with knowledge of the fundamentals of applied business mathematics.

Instruction: Basic application of mathematics to business problems. Personal banking records; inventory and turnover; charges for credit; sales activities and records; depreciation; discount and interest;

promissory notes; interest variables; security transactions. Workbook exercises are used with each lesson.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration (5/77).

Business Psychology

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1972—Present.

Objective: To provide the student with knowledge of the psychological and social aspects of human behavior that are particularly relevant to a business environment.

Instruction: Psychological principles and findings are applied to cases in the areas of personnel selection and placement, career counseling, motivation, worker efficiency, communication, morale, job satisfaction, measurement of performance, group dynamics, and human resource development. (Prerequisite: Basic Psychology.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Organizational Psychology (5/77).

Credit Administration

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1971—Present.

Objective: To provide the student with an understanding of credit and loan administration.

Instruction: Study of the credit and loan function in the context of overall banking operations. Lending types and techniques; methods of credit investigation; sources of credit information; credit techniques; credit correspondence; types of bank loans. (Prerequisites: Accounting I, Accounting II, and Analyzing Financial Statements, or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Banking or Finance (5/77).

Effective English for Business Communication

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1970—Present.

Objective: To enable the student to develop effectiveness in reading, writing, listening, and speaking, and the application of the fundamental principles of word usage, grammar, and style.

Instruction: Purposes of writing; organizing ideas; paragraphs; sentences; diction; choice of words; style; persuasion; business letters; review of grammar and usage; vocabulary; research papers.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration, Business Communication, or English (5/77).

1. Instalment Credit I
2. Instalment Credit II

Location: Various area bank and college facilities.

Length: 1. 45 hours (15 weeks).
2. 45 hours (15 weeks).

Dates: September 1977—Present.

Objective: To provide the student with basic knowledge of instalment credit and its administration.

Instruction: Instalment credit; the techniques of instalment lending; establishing credit; obtaining and checking information; rate structure and yield analysis; servicing the loan and collecting the amounts due; special loan programs; marketing instalment credit.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Banking or Finance (5/77). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Law and Banking (Business Law)

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1971—Present.

Objective: To provide the student with a knowledge of the basic concepts of business law, with emphasis on the Uniform Commercial Code.

Instruction: Jurisprudence; the court system and civil procedure; contracts; property; torts; agencies; partnerships; corporations; uniform commercial code; commercial paper; bank deposits; collections; documents of title and secured transactions.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Law (5/77).

Marketing for Bankers

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1976 – Present.

Objective: To provide the student with an understanding of bank marketing strategies.

Instruction: Development of bank marketing approaches using such marketing concepts as: marketing information, research, and target; product distribution; promotion and pricing strategies; advertising; public relations; and marketing planning.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration or Marketing (5/77).

Money and Banking

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1970 – Present.

Objective: To give the student a broad understanding of the function of the American financial system and the role of money and credit within the total economic system.

Instruction: Structure of the commercial banking system and other financial institutions; banks and the money supply; bank investments and loans; the Federal Reserve System; international monetary systems. (Prerequisite: Principles of Economics.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Money and Banking (5/77).

Negotiable Instruments

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1977 – Present.

Objective: To provide an overview of the legal aspects of negotiable instruments used in bank deposits, collection operations, and payment.

Instruction: Legal aspects of bank operations; commercial paper; check processing and collection; alternative payment mechanism. (Prerequisites: Principles of Bank Operations and Law and Banking or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Banking (5/77).

Principles of Bank Operations

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1975 – Present.

Objective: To provide the student with an understanding of the fundamentals of bank functions.

Instruction: Commercial banks and the monetary system; negotiable instruments; deposit function; payment function; loans and investments; current banking topics; bank accounting; marketing of bank services; external regulations; internal controls; banking and public services.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Banking or Finance (5/77).

Principles of Economics

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To provide the student with knowledge of the theory and practical application of the basic concepts of economics.

Instruction: Survey of basic economics concepts, with emphasis on macroeconomic theory. Macroeconomic concepts; major economic problems (unemployment, inflation, technological change, and the business cycle); measurement of economic inputs and outputs; money and economic growth; money and the banking system; the Federal Reserve System; money and taxation; microeconomic concepts (demand, supply, the market system, and current problems).

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Economics (5/77).

Savings Bank Organization

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1975 – Present.

Objective: To provide the student with a knowledge of the operations, structure, and role of the mutual savings banks in the U.S. economy.

Instruction: History and traditions of savings banking; types of savings institutions; structure; markets; problems; present rules and regulations under which savings banks operate in New York State.

Credit recommendation: In the lower division

baccalaureate/associate degree category, 3 semester hours in Banking or Finance (5/77).

Security Analysis

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1975 – Present.

Objective: To give the student an overview of security analysis and portfolio management techniques.

Instruction: Investment versus speculation; investment process; categories and choices; security valuation and return; risk; common stock analysis; industry analysis; earnings forecasting; bond analysis; technical analysis; efficient market theory; portfolio analysis. (Prerequisites: Accounting I, Accounting II, and Economics or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Banking or Finance (5/77).

Supervision and Personnel Administration (Principles of Supervision)

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To enable the student to understand the role and functions of a manager and to acquaint the student with the problems which may confront a supervisor and ways to solve them.

Instruction: Planning; organizing; staffing; directing; controlling; effective communication; motivation; salary and wage administration; performance appraisal. The course includes the use of lecture/discussion and case study problems.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration (5/77).

Trust Function and Services

Location: Various area bank and college facilities.

Length: 45 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To provide the student with knowledge of the principles and policies underlying the various fiduciary services offered by financial institutions.

Instruction: Survey of major services and functions of a trust department in a financial institution. Property and property rights; wills; settlements of estates; responsibilities of executors and administrators; personal agencies; corporate agencies; employee trusts; pension trusts; community and institutional trusts and agencies.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Banking (5/77).

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

The American Telephone and Telegraph Company (AT&T), with headquarters in New York City, is the parent corporation of the nationwide Bell System, which consists of AT&T Long Lines, Western Electric, Bell Telephone Laboratories, and 23 Associated Operating Companies. Each operating company handles communications services within a particular geographic region.

AT&T conducts a wide range of courses to meet the needs of both management and nonmanagement employees. The courses range from highly technical offerings in specific disciplines such as accounting, computer science, and engineering to more general programs in areas such as supervisory training, managerial skills development, and job enrichment. Courses are offered on company time and are taught both on premises and at Bell System training centers throughout the country.

Source of official student records: Manager, Training and Development, 295 North Maple Avenue, Room 3136B1, Basking Ridge, New Jersey 07920.

Forkner Shorthand Program

Location: AT&T Training Center, Piscataway, NJ; General Development Headquarters, Basking Ridge, NJ.

Length: 128 hours (12-16 weeks); individualized program.

Dates: February 1972—Present.

Objective: To provide the student with an understanding of the principles of Forkner Shorthand in order to develop skill in taking dictation of business letters and transcribing them.

Instruction: Principles of Forkner Shorthand (the mastery of writing sounds, short forms and phrases, and basic business vocabulary); language skills development (grammar, spelling, and typographical usage). Practice in business letter dictation and development of transcription techniques. Dictation at varying speeds with a minimum attainment level of 80 wpm for 2 minutes with a maximum of 7 errors. Cassette tapes are used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration, Business Education, or Secretarial Science (6/75).

Secretarial Seminar

Location: AT&T Training Center, Piscataway, NJ.

Length: 35 hours (1 week).

Dates: January 1970—Present.

Objective: To provide management-level secretaries with simulated office experiences to enable them to organize, administer, and supervise their offices.

Instruction: Development of the conceptual and reasoning abilities as well as the human relations skills needed in a management position. Judgment and decision making; techniques for improving job performance; use of knowledge of company organization and departmental functions in making decisions; representing the boss; job planning and organizing; using initiative; effective letterwriting; the boss-secretary team. Case studies, role playing, and in-basket exercises used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Business Education or Secretarial Science (6/75).

Training and Orientation Program for Secretaries

Location: AT&T Training Center, Piscataway, NJ.

Length: 35 hours (1 week).

Dates: January 1970—Present.

Objective: To provide entry-level secretaries with simulated office experiences to enable them to perform the basic secretarial role.

Instruction: Work organization; job planning; mail logs; letter writing; files management; conference and travel planning; telephone techniques; handling office visitors; grammar; spelling; business mathematics; business organization. Lecturettes, role playing, subgroup exercises, video-taping/critique sessions, and in-basket exercises used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Business Education or Secretarial Science (6/75).

Typing Skills Training

Location: AT&T Training Center, Piscataway, NJ; General Development Headquarters, Basking Ridge, NJ.

Length: 128 hours (12-16 weeks); individualized program.

Dates: January 1971 – Present.

Objective: To provide the student with the basic skills in typewriting and to develop production standards for letters, tabulations, and business forms.

Instruction: Mastery of the keyboard with a minimum attainment level of 40-50 gross wpm with a 2.5 percent error limitation; business letters; tabulation; making corrections; use of punctuation and capitalization; memoranda; outlines; manuscripts; business forms; rough drafts. Audio-visuals, cassette tapes, and texts utilized.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Administration, Business Education, or Secretarial Science (6/75).

Women: Doing the Management Job

Location: Corporate Education Center, Western Electric Company, Princeton, NJ.

Length: 46 hours (5-1/2 days); residential.

Dates: March 1975 – Present.

Objective: To provide the participants with the understanding necessary to improve and utilize managerial skills.

Instruction: Introduction to management theories relating to the development of leadership, including consultation, conflict management, decision making, problem solving, and setting management objectives. Development and utilization of interviewing techniques and processes; handling of sex stereotype problems.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Management (11/75).

LONG LINES DEPARTMENT – NEW YORK CITY AREA

Source of official student records: Director of Training, Management Resource Center, Room 2300, AT&T Long Lines, 32 Avenue of the Americas, New York, New York 10013.

Communications Workshop (M101)

Location: Management Resource Center, 32 Avenue of the Americas, New York, NY.

Length: 40 hours (1 week).

Dates: June 1975 – Present.

Objective: To enable the student to develop effective communications skills.

Instruction: Methods of effective communication; understanding and resolving communications barriers; importance of listening and utilizing feedback. The course includes lecturettes, body language games, problem-solving activities, skill building games in listening, perceptual awareness activities, simulations, and other structured activities.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate degree category, 3 semester hours in Individual Behavior in Small Groups (2/76).

Effective Speaking Seminar

Location: Management Resource Center, 32 Avenue of the Americas, New York, NY.

Length: 47 hours (6 days).

Dates: February 1975 – Present.

Objective: To enable the student to increase his/her oral communication skills by eliminating or minimizing technical barriers to effective communications, sharpening listening skills and refining conversational skills.

Instruction: Barriers and aids to effective listening; active and interactive listening skills; conversational skills; impromptu and prepared speeches; organization of a successful talk; non-verbal communication;

syllabication; components of voice mechanism and proper placement for production of phonemes; vocal quality, flexibility, and projection; discussion of vowels, consonents, and combination vowels. The course consists of a combination of lecture, discussion, language laboratories, films, roleplays, programmed instruction, and analysis of audio tapes of students' presentations.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Communications, Public Speaking, or Speech and Theatre (5/77).

Managing at the First Level (M136)

Refer to New Supervisory Training (M105).

Managing Managers (M210)

Location: Management Resource Center, 32 Avenue of the Americas, New York, NY.

Length: 32 hours (4 days).

Dates: February 1975—Present.

Objective: To assist second-level managers in developing key managerial skills required to perform their job functions effectively.

Instruction: The role of a second-level manager; delegation of responsibility; management appraisal plan; leadership styles; problem solving and decision making; time management; objective setting (management by objective); motivation; subordinate development. Lecture/discussions and various roleplay activities are used to develop skills.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Behavioral Science or Management (2/76).

1. New Supervisory Training (M105)
2. Managing at the First Level (M136)

Location: Management Resource Center, 32 Avenue of the Americas, New York, NY.

Length: 1. 80 hours (2 weeks).
2. 32 hours (4 days).

Dates: 1. January 1975—Present.
2. January 1975—Present.

Objective: To improve the effectiveness of new first level managers through increased knowledge of management practices and to orient them to company practices.

Instruction: Course 1: Fundamentals and applications of management practices (salary administration, labor relations, absence control, personnel practices and appraisal); overview of the organization and functions of the various departments within the company. Approximately one third of the course is devoted to labor-management relations. Course format consists of lectures, discussions, films, and role plays. **Course 2:** Fundamentals of supervision and management practices. Management by objectives; time management; problem solving; motivation (Maslow, Herzberg, work itself/job enrichment); leadership styles (McGregor's Theory X-Theory Y, Blake's managerial grid); appraisal feedback; subordinate development. The course consists of lectures, discussions, individual tasks, and group exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Basic Management (2/76). NOTE: Courses 1 and 2 must both be completed in order to receive full credit. If Course 2 is taken alone, 2 semester hours are recommended.

Vocational Instructor Training (M129)

Location: Management Resource Center, 32 Avenue of the Americas, New York, NY.

Length: 32 hours (4 days).

Dates: January 1975—Present.

Objective: To enable the student to develop the skills needed to make effective presentations.

Instruction: Instructional objectives; four-step teaching process; lesson plans; use of visual aids; measuring teaching effectiveness. Video-taped presentations by the participants on a variety of assigned and selected instruction-related topics are used to teach the material and to provide a basis for critical discussion by the other participants and the course leader.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Oral Communication (2/76).

The following Long Lines courses were evaluated in New York City on August 11, 1977, but the official course descriptions and credit recommendations were not available when this edition of the *Guide* went to press. Information on these courses may be obtained from the New York State Education Department.

Advanced Human Potential Seminar
Basic Human Potential Seminar
Effective Reading Seminar
Effective Writing Styles
Labor Relations
New Supervisory Training (revised version)
Workshop in Problem Solving

MARKETING FOR AT&T SALES AND MARKETING OFFICIALS

The program entitled Marketing for AT&T Sales and Marketing Officials was conducted by the Bell System Data Communications Training Program in Cooperstown, New York, from October 1961 until June 1970. The content of the program was formulated by a task force composed of personnel from AT&T, the Operating Companies, Bell Telephone Laboratories, and the Western Electric Company. The teaching staff were employees of AT&T with considerable experience in the Bell System and thoroughly conversant in the subject matter. Only three sections of the program were presented for evaluation. The first two sections were considered as one unit for evaluation purposes.

Source of official student records: Supervisor, Corporate Education, 4-2-07G2, American Telephone and Telegraph Company, 295 North Maple Avenue, Basking Ridge, New Jersey 07920.

Computer Principles

Refer to Data Switching Concepts.

1. Data Switching Concepts
2. Computer Principles

Location: Bell System Data Communication Training Center, Cooperstown, NY.

Length: 75 hours (6 weeks); residential.

Dates: October 1961—June 1970.

Objective: To provide the student with thorough background in modern data communication so he/she can recognize and satisfy the complex communication needs of customers and can provide them with effective and appropriate facilities in the data communications field.

Instruction: Boolean algebra; logic theory; computer hardware; computer storage; information retrieval; computer languages (symbolic, BASIC, FORTRAN, and COBOL). Students work on involved data cases and design solutions to specific customer problems. Course format consists of lectures, case studies, and laboratory experiences.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Introduction to Computers (6/74). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Marketing and Sales Principles

Location: Bell System Data Communication Training Center, Cooperstown, NY.

Length: 77 hours (6 weeks); residential.

Dates: October 1961—June 1970.

Objective: To provide the student with thorough background in modern data communication so he/she can recognize and satisfy the complex communication needs of customers and can provide them with effective and appropriate facilities in the data communications field.

Instruction: Comprehensive foundation of the basic principles of professional salesmanship; the steps in the personal selling process (identifying potential customer segments, planning the initial sales contact, closing the sales call, and servicing customers); development of behavioral science and communication skills (psychology of interpersonal interaction and the art of listening) through role playing, audio-visual techniques, and problem-solving case histories. The teaching approach effectively integrates classroom lectures and student participation through a large number of classroom and homework exercises.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Principles of Salesmanship (6/74).

SPECIAL PROGRAM IN ENGINEERING ECONOMY FOR PUBLIC UTILITIES

The Special Program in Engineering Economy for Public Utilities is offered by Stanford University each summer to employees of AT&T and other regulated public utilities companies. The highly qualified instructors in the Program are drawn from Stanford, other universities, and industry. Classroom time is divided between lectures, discussions of cases and problems, and work sessions devoted to the solutions of real problems. In addition to the regular classes, lectures which deal with topics of special interest are given. One series of lectures focuses on the use of the computer for solving engineering economy problems. Major textbooks and reading assignments are sent to participants prior to beginning the program. Although the Program consists of four separate courses, the credit recommendation applies only to those students who have completed all of them.

Source of official student records: Supervisor, Corporate Education, 4-2-07G2, American Telephone and Telegraph Company, 295 North Maple Avenue, Basking Ridge, New Jersey 07920.

1. Accounting Problems and Practices in Public Utilities
2. Engineering Economy Applications to Public Utilities
3. Finance
4. Managerial Economics, Rate Structure, and Pricing in Public Utilities

Location: Department of Industrial Engineering, Stanford University, Palo Alto, CA.

Length: **Version 1:** 120 hours (4 weeks); residential.
Version 2: 114 hours (3 weeks); residential.

Dates: **Version 1:** July 1962—December 1972.
Version 2: January 1973—Present.

Objective: To provide participants with knowledge and skills highly relevant to current regulated utilities problems and to update their backgrounds in engineering economy for public utilities; to broaden the background of middle management officers for future advancement within the various participating companies.

Instruction: Course 1: Relationship between accounting and utility regulations. Allocation of costs among different types of services; mortality studies of physical properties and their relationship to depreciation accounting; the determination of the income tax component of utility revenue requirements. The course includes problems and assigned readings selected to stimulate the participant's ability to make effective use of accounting data both in the evaluation and control of operations and in analysis and decision making concerned with investment. **Course 2:** Provides skills for undertaking detailed analyses of the economic consequences of competing alternative courses of action requiring capital investment. Sunk cost; cash flow; time value of money; risk and sensitivity analysis; income tax effects; minimum revenue requirements; replacement problems. Participants bring examples of engineering economy problems from their companies and the data necessary to present a case study in the program. **Course 3:** General principles of financial management, with special applications and policy questions relating to regulated public utilities. Financial functions and controls; forecasting; uncertainty tools in the capital budgeting area; financial structure and the use of leverage; dividend policy and internal financing. Special emphasis is given to the cost of capital, moving into money and capital markets toward the end of the program. **Course 4:** Selected topics in managerial economics. Demand; price determination; competition; market structure. These topics provide the background necessary to understand and treat the special problems faced by a regulated public utility (marginal cost pricing vs. average cost pricing, rate structures, capital plant expansion, and the economic implications of government regulations).

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 2 semester hours in Managerial Economics and 3 semester hours in Managerial Finance (6/74). NOTE: Courses 1, 2, 3, and 4 must all be completed in order to receive credit.

Engineering Economy Applications to Public Utilities

Refer to Accounting Problems and Practices in Public Utilities.

Finance

Refer to Accounting Problems and Practices in Public Utilities.

Managerial Economics, Rate Structure, and Pricing in Public Utilities

Refer to Accounting Problems and Practices in Public Utilities.

TRAINING RESEARCH GROUP

Source of official student records: Training Research Group—Key Instructor, American Telephone and Telegraph Company, 130 John Street, Room 1733-A, New York, New York 10038.

Performance Analysis Workshop

Location: Various training facilities throughout the Bell System.

Length: 25 hours (3 days); residential.

Dates: August 1973—Present.

Objective: To provide management personnel with the knowledge and skills necessary to apply problem-analysis strategies to human performance problems and to recommend and implement cost-effective solutions.

Instruction: System for analyzing human performance problems. Identifying or isolating performance problems; determining the value of correcting the problems; determining the causes of the problems, including lack of knowledge and factors in the work environment; selecting strategies for solving the problems. Individual work combined with case studies and group discussions.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Problem Analysis (11/74).

ARTHUR ANDERSEN AND COMPANY

Arthur Andersen and Company is a worldwide firm of independent auditors and accountants. It includes 52 operating offices in the United States and Puerto Rico and 54 offices located in 32 other countries, in which there are more than 1,000 partners and 11,000 professional employees.

The firm conducts diverse technical training required for the professional development of its personnel in the audit, tax, and administrative services divisions, as well as for the development of technical competence in dealing with problems unique to specialized industries. The courses include such topics as accounting and auditing, taxation, managerial skills development, reporting to regulatory bodies, and highly technical instruction on computers and systems installation. All personnel, from newly employed staff to experienced partners, participate in these courses at levels of complexity commensurate with their responsibilities, experience, and needs. Approximately half of the training is conducted in the operating offices, primarily using centrally prepared course materials, and the balance at the firm's Center for Professional Development in St. Charles, Illinois.

Source of official student records: Director of Training, Arthur Andersen & Co., Center for Professional Development, 1405 North Fifth Avenue, St. Charles, Illinois 60174.

Firmwide Audit Staff Training School (FASTS)

Location: Center for Professional Development, St. Charles, IL.

Length: 116 hours (3 weeks); 4 days preparation in local office followed by 11 days in residence, plus approximately 42 hours of outside reading and problem assignments.

Dates: August 1975 – Present.

Objective: To teach new staff members the practical application of the procedural aspects of auditing, documentation of audit work done, and derivation of resultant audit conclusions.

Instruction: A complete audit for a medium-sized manufacturing firm that employs standard costing of inventories, using a practice set containing computer-prepared books, records, and documents, and the use of random selection of transactions for examination. Case study problems range from preparation of working trial balances to drafting of the auditors' report and financial statements, and emphasize the usual duties and responsibilities of a first-year staff accountant. These include: preparation of audit working papers and analyses of accounts; review, evaluation, and testing of internal control; and performance of basic audit procedures and techniques, in accordance with written audit program instructions.

Credit recommendation: In the upper division baccalaureate degree category, 4 semester hours in Auditing (6/76).

Integration of Intermediate and Advanced Accounting with Auditing

(Formerly Intermediate Accounting Course)

Location: University of Illinois, Urbana, IL.

Length: 215 hours (5 weeks); residential, approximately 136 hours of outside reading and problem assignments.

Dates: July 1972 – Present.

Objective: To teach a knowledge of accounting concepts and uses of financial statements and reports to new staff members who have completed only basic college accounting courses.

Instruction: Instruction covers the normal academic accounting curriculum ranging from elementary through advanced courses. Accounting concepts and principles; financial statement preparation and analysis; nature of auditing; the collection of evidence in auditing; professional ethics; accounting for cash, receivables, inventories, investments, plant and equipment, intangibles, liabilities, and corporate capital; cost and managerial accounting; accounting for partnerships; accounting errors and their correction; statement of changes in financial position; statements from incomplete data; statements adjusted for changes in price levels; business consolidations. The course includes lectures, case studies, problem solving, and homework assignments.

Credit recommendation: In the upper division baccalaureate degree category, 2 semester hours in Auditing Theory, 4 semester hours in Intermediate Accounting, and 3 semester hours in Advanced Accounting (6/76).

BERNARD FINESON DEVELOPMENTAL CENTER

Bernard Fineson Developmental Center, a unit of the New York State Department of Mental Hygiene, consists of three facilities located in the Borough of Queens, New York City. The Center is responsible for providing care for mentally retarded individuals of all ages, etiologies, and degrees of mental retardation in both residential and day care programs.

In an effort to emphasize the humanizing, developmental, and educational, rather than the custodial, aspects of the treatment of the mentally retarded, the Education and Training Department conducts a variety of courses aimed at developing professional expertise. The courses are open to professional and paraprofessional developmental center staff, foster parents, community agency personnel, special education teachers, college students, health care providers, and volunteers.

Source of official student records: Director of Education and Training, Bernard Fineson Developmental Center, Howard Park Unit, 155-55 Cross Bay Boulevard, Howard Beach, New York 11414.

Activities of Daily Living (7)

Location: Corona Unit, Corona, NY; Glen Oaks Unit, Creedmoor State Hospital, Queens Village, NY; Howard Park Unit, Howard Beach, NY.

Length: 30 hours (15 weeks).

Dates: November 1975—Present.

Objective: To demonstrate techniques for training severely and profoundly mentally retarded individuals in daily living activities.

Instruction: Demonstration and practical application of the activities of daily living. Self-feeding; dressing; toilet training; communication skills; safety and mobility skills; household activities.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Behavioral Science or Education (4/76).

Behavior Modification for Professionals (9)

Location: Corona Unit, Corona, NY; Glen Oaks Unit, Creedmoor State Hospital, Queens Village, NY; Howard Park Unit, Howard Beach, NY.

Length: 30 hours (15 weeks).

Dates: February 1976—Present.

Objective: To provide professional staff with the knowledge of behavior modification theory and methodology needed to develop and supervise behavior modification programs.

Instruction: Review of history, philosophy, principles, and measurement; theory of behavior change; alternative strategies; special theories of self-control, reciprocal inhibition, token economies, and "emotional messages"; program implementation and supervision.

Credit recommendation: In the graduate degree category, 2 semester hours in Behavioral Science, Education, or Psychology (4/76).

Behavior Modification Techniques (6)

Location: Corona Unit, Corona, NY; Glen Oaks Unit, Creedmoor State Hospital, Queens Village, NY; Howard Park Unit, Howard Beach, NY.

Length: 30 hours (15 weeks).

Dates: November 1975—Present.

Objective: To provide an introduction to theories and practices of behavior modification.

Instruction: Defining, measuring, changing, and maintaining behavior; specific techniques for teaching new behaviors.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Behavioral Science, Education, Psychology, or Sociology (4/76).

Behavior Therapy (10)

Location: Corona Unit, Corona, NY; Glen Oaks Unit, Creedmoor State Hospital, Queens Village, NY; Howard Park Unit, Howard Beach, NY.

Length: 30 hours (15 weeks).

Dates: October 1975 – Present.

Objective: To provide an introduction to the theory and practice of behavior therapy.

Instruction: Theory of and practices in behavior therapy. Thought stoppage; evaluation; conceptualization; relaxation techniques; desensitization; assertive training.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 2 semester hours in Behavioral Science or Psychology (4/76).

The Cerebral Palsied Mentally Retarded and Physically Handicapped Individual (3)

Location: Corona Unit, Corona, NY; Glen Oaks Unit, Creedmoor State Hospital, Queens Village, NY; Howard Park Unit, Howard Beach, NY.

Length: 30 hours (15 weeks).

Dates: February 1976 – Present.

Objective: To provide a knowledge of the developmental approach to physical habilitation and communication skills.

Instruction: The developmental approach to the physical habilitation, sensory stimulation, and communication skills of severely and profoundly mentally retarded, physically handicapped individuals. Skills taught include techniques of handling, positioning, ambulation, adaptive equipment, sensory stimulation, and language therapy. Emphasis is on experiential and demonstrative training.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Behavioral Science or Education (4/76).

Current Theory in the Disorder of the Severe and Profound Mentally Retarded Individual (2)

Location: Corona Unit, Corona, NY; Glen Oaks Unit, Creedmoor State Hospital, Queens Village, NY; Howard Park Unit, Howard Beach, NY.

Length: 30 hours (15 weeks).

Dates: February 1976 – Present.

Objective: To provide a survey of current knowledge of mental retardation, including physical, social, and emotional aspects.

Instruction: History of mental retardation; definition of terms; etiology of mental retardation; labor and delivery; normal developmental milestones; neurologic examinations; neuropsychologic assessment; behavior modification; learning disabilities; seizures; common orthopedic problems; impact of mental retardation on the family.

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Behavioral Science (4/76).

The Interdisciplinary Treatment Plan for Direct Care Personnel Working With the Severely and Profoundly Mentally Retarded Client (4)

Location: Corona Unit, Corona, NY; Glen Oaks Unit, Creedmoor State Hospital, Queens Village, NY; Howard Park Unit, Howard Beach, NY.

Length: 30 hours (15 weeks).

Dates: February 1976 – Present.

Objective: To provide direct care trainees with an overview of the functions of the interdisciplinary team.

Instruction: The role of each discipline as a specialization and the cooperative integration of discipline functions to provide an individualized treatment plan for the client. The competencies surveyed include occupational therapy, physical therapy, neurodevelopmental feeding, communication skills, recreation, movement therapy, social work, psychology, and medicine relevant to the severely and profoundly mentally retarded individual.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Behavioral Science (4/76).

The Interdisciplinary Treatment Plan: Overview for Professionals of Current Approaches in the Interdisciplinary Management of Severely and Profoundly Mentally Retarded Individuals (5)

Location: Corona Unit, Corona, NY; Glen Oaks Unit, Creedmoor State Hospital, Queens Village, NY; Howard Park Unit, Howard Beach, NY.

Length: 30 hours (15 weeks).

Dates: February 1976 – Present.

Objective: To provide health care professionals and special educators with knowledge of contemporary approaches to the treatment of the severely and profoundly mentally retarded client.

Instruction: Theoretical principles and practices used by supervisors of interdisciplinary teams. Occupational therapy; physical therapy; feeding; communication skills; movement therapy; nursing; psychology; social work; medicine.

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Behavioral Science (4/76).

Preparation in Community Living for Retarded Adults (8)

Location: Corona Unit, Corona, NY; Glen Oaks Unit, Creedmoor State Hospital, Queens Village, NY; Howard Park Unit, Howard Beach, NY.

Length: 30 hours (15 weeks).

Dates: February 1976 – Present.

Objective: To explore practical problems involving the emotional, intellectual, social, and physical needs of mentally retarded adolescents and adults.

Instruction: Health problems; adolescent problems; education and training; the retarded adult in society; community resources; living arrangements; adult sexuality; a view of the future.

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Behavioral Science, Education, Psychology, or Sociology (4/76).

The Pre-School Mentally Retarded Child (1)

Location: Corona Unit, Corona, NY; Glen Oaks Unit, Creedmoor State Hospital, Queens Village, NY; Howard Park Unit, Howard Beach, NY.

Length: 30 hours (15 weeks).

Dates: February 1976 – Present.

Objective: To provide knowledge of the developmental processes in the moderately to severely mentally retarded pre-school child.

Instruction: Normal development, abnormal development, and developmental learning from infancy to age six. Definitions of mental retardation; common syndromes; growth and development milestones; the learning process; client evaluation and case history reviews; early intervention programs; cognitive and perceptual skills; teaching skills.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Behavioral Science or Education (4/76).

BLUE CROSS/BLUE SHIELD OF GREATER NEW YORK

The following courses conducted by Blue Cross[1]Blue Shield of Greater New York were evaluated at the corporate headquarters in New York City on August 9, 1977, but the official course descriptions and credit recommendations were not available when this edition of the *Guide* went to press. Information on these courses may be obtained from the New York State Education Department.

BAL (DP04)
COBOL Programming (DP01)
OS JCL and Utilities (DP02)
OS/VS Dumps and Debugging (DP03)

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CENTER FOR HUMAN SERVICES TRAINING, INC.

The Center for Human Services Training, under its contract with the Erie County (New York) Department of Mental Health, operates the Community Mental Health Manpower Development Project. The Center provides both training and manpower technical assistance services to the mental health service delivery system of Erie County. Under this program, the Center is responsible for the certification of Community Mental Health workers at various levels of the Erie County Civil Service career ladder. This certification is obtained by an individual's successful completion of various core (essential) modules or courses plus speciality modules. In addition, trainees must successfully complete yearlong fieldwork assignments under the supervision of agency staff coordinated by Center staff.

Source of official student records: Manpower Office, Erie County Department of Mental Health, 95 Franklin Street, Buffalo, New York 14202.

Approaches to Problem Solving (210)

Refer to Introduction to Mental Health Services.

Community Resources (207)

Refer to Introduction to Mental Health Services.

Introduction to Community Mental Health (203)

Refer to Introduction to Mental Health Services.

Introduction to Crisis Intervention (204)

Refer to Introduction to Mental Health Services.

Introduction to Group Work (205)

Refer to Introduction to the Human Services.

Introduction to Interviewing (201)

Refer to Introduction to the Human Services.

Introduction to Mental Health Services

1. **Introduction to Community Mental Health (203)**
2. **Introduction to Crisis Intervention (204)**
3. **Community Resources (207)**
4. **Approaches to Problem Solving (210)**

Location: Center classrooms, 170 Franklin Street, Buffalo, NY.

Length: 1. 24 hours (12 weeks).
2. 14 hours (2 days).
3. 16 hours (8 weeks).
4. 30 hours (15 weeks).

Dates: September 1974 – December 1976.

Objective: To provide the student with an introduction to the mental health system and the helping role.

Instruction: Introduction to Mental Health Services consisting of four modules: introduction to basic concepts of Community Mental Health, issues of professionalism; a two-day workshop focusing on the theory and techniques of crisis intervention; orientation to major mental health and human service agencies in the geographic area and techniques of client expediting; approaches to problem solving explored primarily through the use of case studies.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Mental Health (11/75). NOTE: Courses 1, 2, 3, and 4 must all be completed in order to receive credit.

Introduction to the Human Services

1. **Introduction to Interviewing (201)**
2. **Introduction to Group Work (205)**
3. **Life-Span Development (208)**
4. **Perspectives on Ethnicity (218)**

Location: Center classrooms, 170 Franklin Street, Buffalo, NY.

Length: 1. 22 hours (11 weeks).
2. 18 hours (9 weeks).
3. 14 hours (7 weeks).
4. 18 hours (9 weeks).

Dates: September 1974 – December 1976.

Objective: To provide the student with the basic skills necessary for self-understanding and the understanding of interpersonal relations in preparation for working in the human services.

Instruction: Introduction to the Human Services consisting of four modules: introduction to interviewing; basic techniques of group work (theory, processes, and methods of working effectively with various kinds of groups); Erikson's life-span development; perspectives on ethnic groups. Use of both lectures and group exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Human Services (11/75). NOTE: Courses 1, 2, 3, and 4 must all be completed in order to receive credit.

Life-Span Development (208)

Refer to Introduction to the Human Services.

Perspectives on Ethnicity (218)

Refer to Introduction to the Human Services.

CENTRAL LABOR REHABILITATION COUNCIL OF NEW YORK, INC.

The Central Labor Rehabilitation Council of New York, which is part of the New York City Central Labor Council, AFL-CIO, is sponsored by the vast majority of local unions in New York City. It serves that metropolitan area and provides professional, vocational, social, and other counseling, without fees, for workers, members of their families, and members of the community.

Within the Council, the Community Services Committee is responsible for implementing training programs for local union officers, including business representatives and shop stewards, and for rank and file workers. The training programs help participants learn more about the Council and the social service agencies in the community, and provide them with counseling skills to assist workers in dealing with job-related and personal problems.

Source of official student records: Office of the Director, Community Services Committee, New York City Central Labor Council, AFL-CIO, 386 Park Avenue South, New York, New York 10016.

1. Labor's Role in Employee Alcoholism Programs

2. Union Drug Counselor Training Program

Location: 386 Park Avenue South, New York, NY.

Length: 1. 16 hours (7 weeks).
2. 14 hours (6 weeks).

Dates: June 1976—Present.

Objective: To provide the participant with basic knowledge about drug and alcohol abuse needed to serve as a lay counselor in a work situation.

Instruction: Course 1: Study of alcoholism; its physiological effects; the impact of alcoholism on the family; on-the-job problems related to alcoholism; the union's role in employee alcoholism programs; referral techniques; the study of existing labor-management alcoholism programs. **Course 2:** Pharmacology of drugs; the drug abuser and causes of drug abuse; selected treatment modalities; history of drug use and rehabilitation in the United States; labor arbitration of drug-related cases; selected referral units. Field trips are a required part of both courses.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Social Science (6/76). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Union Drug Counselor Training Program

Refer to Labor's Role in Employee Alcoholism Programs.

CHAUTAUQUA INSTITUTION

Chautauqua Institution, founded in 1874, is located on 700 acres near the head of Chautauqua Lake in southwestern New York State. It is a residential community, a summer resort colony, and an educational institution.

The Chautauqua Summer School was established soon after the founding and is believed to be the oldest summer school in the United States. Chautauqua's educational aim is to provide creative opportunities for all ages for many varied interests. Emphasis is on three areas: professional studies for teachers, advanced music training, and special interest courses. The latter include art, dance, and theatre, as well as crafts and topical offerings. Classroom and workshop opportunities are available to everyone regardless of age.

Course offerings of the Summer School are augmented by many artistic, intellectual, and religious discussions and programs. These are easily accessible to all and occur daily throughout the eight-week season. Included are frequent resident symphony orchestra concerts and concerts by renowned international artists, a recital series, an art gallery and annual art festival, opera company and repertory theatre productions, a film theatre, and daily lectures, discussions, and sermons on a wide variety of topics.

Source of official student records: Registrar, Summer School Office, Box 28, Chautauqua Institution, Chautauqua, New York 14722.

ART CENTER

The Art Center serves students of all ages who are interested in exploring various art forms. Both serious artists and novices are individually supervised by experienced artist/teachers. Instruction is offered in painting and drawing, pottery, ceramics, jewelry making, sculpture, weaving, art criticism, and art appreciation. Throughout the season, the students and faculty participate in various art exhibitions.

Ceramic Sculpture (A103, A106)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 120 hours (7 weeks).

Dates: June 1974—Present.

Objective: To provide the student with knowledge of and basic techniques in working with the human figure employing ceramic materials and processes.

Instruction: Combination of the techniques of modeling the human figure with those of ceramics. Compositions are executed by various means in clay, fired in the kiln, and sometimes glazed. Instruction includes the making of piece-molds, pouring, and pressing.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Ceramic Sculpture (8/75). NOTE: Credit should be awarded before the end of the second year following completion of a course. Credit may be awarded twice to students who complete the course more than one time.

Ceramics and Metal Shop

Part 1: Ceramics (A104C, A107, A108)
Part 2: Metal Shop (A104M, A109, A110)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 120 hours (4-8 weeks).

Dates: June 1974—Present.

Objective: **Part 1:** To familiarize the student with the possibilities in working with clay. **Part 2:** To familiarize the student with the possibilities in working with silver, copper, and brass.

Instruction: **Part 1:** Throwing on the Potter's Wheel; hand-building (coil, slab, press-mold); decorating with slip and/or underglaze colors; stains and oxides; glaze technology and application. **Part 2:**

Techniques of working with silver and other metals; sawing plate; working with wire; soldering setting of stones (bezel and prong); modeling in wax preparatory to centrifugal casting; other methods of casting; finishing a piece of jewelry. Enamel techniques on copper and fine silver; dusting; wet layering; cloisonne; basse taille; plique a jour, etc.

Credit recommendation: Part 1: In the lower division baccalaureate/associate degree category, 3 semester hours in Ceramics (8/75). **Part 2:** In the lower division baccalaureate/associate degree category, 3 semester hours in Metal and Jewelry (8/75). NOTE: Credit should be awarded before the end of the second year following completion of a course.

Painting and Drawing

Part 1: Painting (A101P, A118, A119)
Part 2: Drawing (A101D, A120, A121)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 120 hours (4-8 weeks).

Dates: June 1974 – Present.

Objective: Part 1: To enable the student to express his/her ideas on canvas by means of various painting media. **Part 2:** To enable the student to express his/her ideas through the medium of drawing.

Instruction: Students concentrate on either drawing or painting for the course. **Part 1:** Student-selected focus in portraiture, figure, landscape, still life, or abstract areas utilizing acrylics, oils, and watercolor. **Part 2:** Student-selected focus in portraiture, figure drawing, landscape, still life, or non-objective utilizing drawing materials.

Credit recommendation: Part 1: In the lower division baccalaureate/associate degree category, 3 semester hours in Painting (8/75). **Part 2:** In the lower division baccalaureate/associate degree category, 3 semester hours in Drawing (8/75). NOTE: Credit should be awarded before the end of the second year following completion of a course. Credit may be awarded twice to students who complete the course more than one time.

Sculpture (A103, A131)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 120 hours (7 weeks).

Dates: June 1974 – Present.

Objective: To provide the student with experience in modeling the human form, both portraiture and full figure.

Instruction: Studio-oriented approach to the subject of sculpture and a strong foundation in the mechanics and techniques of making portrait-busts and figure pieces.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Sculpture (8/75). NOTE: Credit should be awarded before the end of the second year following completion of a course. Credit may be awarded twice to students who complete the course more than one time.

Weaving (A105, A139-A144)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 120 hours (8 weeks).

Dates: June 1974 – Present.

Objective: To provide instruction in weaving at three levels.

Instruction: Students are classified as beginning, intermediate, or advanced depending on their experience, knowledge, and ability. **Beginning:** Warping, beaming, and threading; design; use of colors; combinations of yarns; weaving equipment and techniques. Students weave on prepared looms. **Intermediate:** Using basic techniques and weaves, students work independently to design and create more detailed and difficult patterns. They also design and execute larger pieces and projects. (Prerequisite: one year of class or self-taught weaving.) **Advanced:** Individualized instruction at the advanced level involving the techniques of double weaves, multiple harness lace weaves, summer and winter, and crackle weaves. (Prerequisite: weaving experience, ability to dress the loom, understanding of drafts and techniques, tie-ups, some designing, and knowledge of yarns.)

Credit recommendation: Beginning or Intermediate: In the lower division baccalaureate/associate degree category, 3 semester hours in Weaving (8/75). **Advanced:** In the upper division baccalaureate category, 3 semester hours in Weaving (8/75). NOTE: Credit may be awarded to a student for all three levels of instruction. Credit should be awarded before the end of the second year following completion of a course.

DANCE DEPARTMENT

The Chautauqua Dance Department offers an eight-week summer curriculum for beginning through advanced-professional level students. Students participate in graded courses which include classical ballet, modern dance, ethnic (character and Spanish) and jazz (contemporary theatre and television) and which are augmented by two-week workshops in mime, improvisation, tap dance, and Japanese dance. Students are placed by audition in appropriate classes depending on ability, training, and strength. They may elect to substitute a major (one hour per day) for the workshops or may elect to take both the major and the workshops. Throughout the summer, students have the opportunity to observe and learn from professional guest dance artists and companies in rehearsal and performance.

1. Ballet I (Elementary)
2. Ballet II (Intermediate)
3. Ballet III (Intermediate-Advanced)
4. Ballet IV (Advanced)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 1. 40 hours (8 weeks).
2. 60 hours (8 weeks).
3. 60 hours (8 weeks).
4. 60 hours (8 weeks).

Dates: June 1974 – Present.

Objective: To instruct students in the technique and art of classical ballet at four levels.

Instruction: Classical ballet techniques. Barre; port de bras; adagio; pirouettes; allegro. Pointe work is offered to the professional-advanced and intermediate students when they have achieved technical readiness.

Credit recommendation: Course 1: In the lower division baccalaureate/associate degree category, 1 semester hour in Ballet (8/75). **Course 2:** In the lower division baccalaureate/associate degree category, 2 semester hours in Ballet (8/75). **Course 3 or 4:** In the upper division baccalaureate category, 2 semester hours in Ballet (8/75). **All Courses:** An additional 1 semester hour at the same level is recommended for students completing a major in ballet (8/75). NOTE: Credit should be awarded before the end of the second year following completion of a course.

1. Modern Dance I (Elementary)
2. Modern Dance II (Intermediate)
3. Modern Dance III (Intermediate-Advanced)
4. Modern Dance IV (Advanced)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 1. 40 hours (8 weeks).
2. **Version 1:** 40 hours (8 weeks).
Version 2: 60 hours (8 weeks).
3. **Version 1:** 40 hours (8 weeks).
Version 2: 60 hours (8 weeks).
4. 60 hours (8 weeks).

Dates: 1. June 1974 – Present.
2. **Version 1:** June 1974 – August 1975.
Version 2: June 1976 – Present.
3. **Version 1:** June 1974 – August 1975.
Version 2: June 1976 – Present.
4. June 1974 – Present.

Objective: To instruct the student in the technique, improvisation, and composition of modern dance.

Instruction: Personalized communicative expression through modern dance movement, including identification of logical precepts for correct body education. Floor and standing exercises; across-the-floor combinations using four basic elements of dance (motion, shape, space, and time); development of physical and perceptual skills; movement composition.

Credit recommendation: Course 1 or Course 2, Version 1: In the lower division baccalaureate/associate degree category, 1 semester hour in Modern Dance (8/75). **Course 2, Version 2:** In the lower division baccalaureate/associate degree category, 2 semester hours in Modern Dance (8/76). **Course 3, Version 1:** In the upper division baccalaureate category, 1 semester hour in Modern Dance (8/75). **Course 3, Version 2:** In the upper division baccalaureate category, 2 semester hours in Modern Dance (8/76). **Course 4:** In the upper division baccalaureate category, 2 semester hours in Modern Dance (8/75). **All Courses:** An additional 1 semester hour at the same level is recommended for students completing a major in Modern Dance (8/75). NOTE: Credit should be awarded before the end of the second year following completion of a course.

SCHOOL OF MUSIC

The Music School offers an intensive seven-week program of study, practice, and related musical activities. The School is divided into a Senior Division and a Preparatory Division; it also offers a number of short-term workshops with leading musicians. All courses listed below are offered in the Senior Division. In addition to formal instruction, the Senior Division offers students many opportunities for public performances in the Music School Festival Orchestra and in small group ensembles. The students also are able to attend concerts by a professional resident symphony orchestra, performances by a resident opera company, and concerts by internationally known guest artists.

Chamber Music Group I (M201A, M202)

Refer to Music School Festival Orchestra (M201).

Chamber Music Group II (M201B, M203)

Refer to Music School Festival Orchestra (M201).

Chamber Music Workshop (M201C, M204)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 31-1/2 hours (7 weeks).

Dates: June 1976 – Present.

Objective: To instruct the student in the technique and art of chamber music performance.

Instruction: Music concept; technique as a chamber music performer; interpretation, repertoire. Experience in rehearsal techniques and participation in performances of standard chamber music repertoire.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Chamber Music (8/76). NOTE: Credit should be awarded before the end of the second year following completion of the course. This course is identical to Chamber Music Group II (M201B, M203).

Diction for Singers

1. **French (M234A, M221F)**
2. **German (M234B, M221G)**
3. **Italian (M234C, M221I)**

Location: Chautauqua Institution, Chautauqua NY.

Length: 21 hours (7 weeks).

Dates: June 1976 – Present.

Objective: To enable the student to read at sight in French, German, or Italian with a pronunciation that not only is accurate but also reflects a minimal foreign accent.

Instruction: Studies in pronunciation for singers, with special attention given to the song and operatic literature and to developing fluency in correct pronunciation in sight reading the language under study.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Diction for Singers or Voice (8/76). NOTE: Credit should be awarded before the end of the second year following completion of a course.

Interpretation Classes (M216, M214)

Refer to Piano Literature.

Master Classes (M217, M213)

Refer to Piano Literature.

1. **Music School Festival Orchestra (M201)**
2. **Chamber Music Group I (M201A, M202)**
3. **Chamber Music Group II (M201B, M203)**

Location: Chautauqua Institution, Chautauqua, NY.

Length: 1. 70 hours (7 weeks).
2. 14 hours (7 weeks).
3. 31-1/2 hours (7 weeks).

Dates: June 1976 – Present.

Objective: To instruct the student in the technique and art of orchestral and chamber music performance.

Instruction: Music concept; technique as an orchestra and chamber music performer; interpretation; repertoire. Standard and contemporary repertory, including large and small choral and orchestral works and concerto accompaniments. Experience in rehearsal techniques and participation in performances of the full orchestra and small group ensembles.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Orchestra (8/76). NOTE: Credit should be awarded before the end of the second year following completion of a course. Course 1 must be completed with either Course 2 or Course 3 in order to receive credit. Course 3 is identical to Chamber Music Workshop (M201C, M204).

Opera Workshop (M232, M222)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 31-1/2 hours (7 weeks).

Dates: June 1976—Present.

Objective: To provide students with an understanding of opera as a form of the dramatic arts.

Instruction: Study and memorization of opera roles; proper use of hands and bodies in expressing the meaning of words being sung; performance of operatic scenes to provide practical experience.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Opera Workshop (8/76). NOTE: Credit should be awarded before the end of the second year following completion of the course.

Orchestral Instruments—Individual Instruction

1. **Bass, String (M270, M240)**
2. **Bass Clarinet (M241)**
3. **Bassoon (M271, M242)**
4. **Cello (M272, M273, M243, M244)**
5. **Clarinet (M275, M246)**
6. **Flute (M276, M278, M247-M249)**
7. **Harp (M279, M280, M252)**
8. **Horn (M281, M253)**
9. **Oboe (M282, M255)**
10. **Percussion (M283, M256)**
11. **Saxophone (M284, M257)**
12. **Timpani (M289, M262)**
13. **Trombone (M285, M258, M259)**
14. **Trumpet (M287, M260)**
15. **Tuba/Bass Trombone (M288, M261)**
16. **Viola (M290-M293, M298, M263-M267)**
17. **Violin (M294-M297, M263-M271)**

Location: Chautauqua Institution, Chautauqua, NY.

Length: 7 hour-long private lessons and individual practice during 7-week program.

Dates: June 1976—Present.

Objective: To teach the student the fundamentals of playing the particular instrument in chamber music, solo, and orchestral situations.

Instruction: Concentrated applied music study in the particular instrument at levels appropriate to the experience and capabilities of the student. Instructors typically are artist-teachers and members of the Chautauqua Symphony Orchestra.

Credit recommendation: Each course: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in the particular instrument (8/76). NOTE: Credit should be awarded before the end of the second year following completion of a course.

Organ—Individual Instruction (M254, M237)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 7 hour-long private lessons and individual practice during 7-week program.

Dates: June 1976—Present.

Objective: To aid the student in attaining the technical facility and coordination needed for the execution of all the organ repertoire.

Instruction: Concentrated applied study in the Organ at levels appropriate to the experience and capabilities of the student. Repertoire study ranging from pre-Bach German and French to 20th century German, French, and American. Discussion of form, style, performance practices at the time and how they might apply now.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Organ (8/76). NOTE: Credit should be awarded before the end of the second year following completion of a course.

Piano—Individual Instruction (M221-M223, M207-M209)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 7 hour-long private lessons and individual practice during 7-week program.

Dates: June 1976—Present.

Objective: To provide the student with individual instruction in piano.

Instruction: Concentrated applied music study in the Piano at levels appropriate to the experience and capabilities of the student. Development of technical proficiency and solving of fundamental problems involved in playing the piano.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the

upper division baccalaureate category, 2 semester hours in Piano (8/76). NOTE: Credit should be awarded before the end of the second year following completion of a course.

Piano Literature

1. **Interpretation Classes (M216, M214)**
2. **Master Classes (M217, M213)**

Location: Chautauqua Institution, Chautauqua, NY.

Length: 1. 14 hours (7 weeks).
2. 21 hours (7 weeks).

Dates: June 1976 – Present.

Objective: To provide the student with a comprehensive survey of piano literature from the Baroque period through the Romantic and early contemporary periods.

Instruction: Live performances by concert performers and exceptional students of the major works of some 20 composers, accompanied by a discussion of their form and interpretation. The major works include those of Bach, Haydn, Mozart, Beethoven, Brahms, Schumann, Chopin, and Liszt.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Piano Literature (8/76). NOTE: Credit should be awarded before the end of the second year following completion of a course. Courses 1 and 2 must both be completed in order to receive credit.

Survey of Vocal Literature (M233, M223)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 21 hours (7 weeks).

Dates: June 1976 – Present.

Objective: To introduce the student to a wide range of vocal literature and to give some critique on style, diction, and interpretation.

Instruction: Representative literature of principal German, French, British, and American song composers of the 18th, 19th, and 20th centuries. Lecture and participation in performance.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Survey of Vocal Literature (8/76). NOTE: Credit should be awarded before the end of the second year following completion of the course.

Voice – Individual Instruction (M237-M239, M217-M219)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 7 hour-long private lessons and individual practice during 7-week program.

Dates: June 1976 – Present.

Objective: To instruct the student in the technique and art of using the voice.

Instruction: Private lessons in vocal development and concepts of tone, pitch accuracy, breathing, vocal exercises, musical style, and performance practices and interpretation.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Voice (8/76). NOTE: Credit should be awarded before the end of the second year following completion of a course.

SPECIAL INTEREST OFFERINGS

In addition to the art, dance, and theatre schools, a wide variety of special interest workshops and courses are conducted each year. The schedule of approximately 85 offerings is revised annually to meet the requests of prospective students and instructors.

Writers' Workshop

Part 1: Poetry Section (483P, S470)
Part 2: Fiction Section (483F, S468)

Location: Chautauqua Institution, Chautauqua, NY.

Length: **Part 1:** 15 hours (3 weeks).
Part 2: 15 hours (3 weeks).

Dates: June 1975 – Present.

Objective: **Part 1:** To increase the student's knowledge of poetry and ability to write it. **Part 2:** To increase the student's knowledge of fiction and ability to write it.

Instruction: **Part 1:** Study and practice of the basic tools of poetry. Emphasis is on the student's own poetry, either work in progress or newly created during

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the course. Students work on their poetry outside of class and receive written critiques from the instructor, comments from the class, and a minimum of one hour of conference time. **Part 2:** Classroom lectures concentrate on plot, character development, and forms of the short story. Emphasis is on the student's own writing, either work in progress or newly created during the course. Students work outside of class and receive written critiques from the instructor, comments from the class, and a minimum of one hour of manuscript conference time.

Credit recommendation: Part 1: In the lower division baccalaureate/associate degree category, 1 semester hour in Independent Study in Poetry (8/76). **Part 2:** In the lower division baccalaureate/associate degree category, 1 semester hour in Independent Study in Fiction (8/76). NOTE: Credit should be awarded before the end of the second year following completion of a course.

THEATRE DEPARTMENT

The Cleveland Play House at Chautauqua provides a six-week summer theatre program, giving preprofessional training to young actors in a concentrated, practical course structure. Students study a diverse curriculum with emphasis in acting, but designed to incorporate other aspects of theatre as well. The faculty comprises actors and directors from the Play House company; students receive individual attention through tutorials and small classes. At the end of the term, students participate in a series of showcase productions, drawing together the various aspects of their training. Through the program, students become acquainted with some of the methods and techniques of the actor, improve the uses of their physical and vocal instruments, and receive an impression of life in the professional theatre.

Theatre School (T500)

Location: Chautauqua Institution, Chautauqua, NY.

Length: 150 hours (6 weeks).

Dates: June 1975 – Present.

Objective: To introduce the potential acting student to a system of training and discipline that he/she will encounter in continuing study toward work in the theatre.

Instruction: Movement: relaxation exercises, corrective movement, preparation of the body as a flexible and expressive instrument (includes dance and mime work). Voice: breathing, resonators, vowels, consonants, efficient production of sound, phrasing, interpretation, rhythm, articulation, and verse. Improvisation: theatre games, orientation exercises, stimulation of the imagination through sensitivity and awareness, Spolin techniques. Stage fencing: techniques for creating effective stage sword flights. Scene work: the study, preparation, and performance of a variety of scenes with close guidance from faculty. Stagecraft is not included. The course also includes brief lectures on the actor's relationship to other theatre arts.

Credit recommendation: In the lower division baccalaureate/associate degree category, 5 semester hours in Acting (8/76). NOTE: Credit should be awarded before the end of the second year following completion of the course.

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CITY OF ALBANY DEPARTMENT OF HUMAN RESOURCES

The City of Albany Department of Human Resources administers several programs under the Comprehensive Employment and Training Act (CETA) of 1973 and provides funding support for three non profit agencies (The City Bureau of Cultural Affairs, The City Arts Office, and The City Bureau of the Aging).

CETA was enacted by the Congress to establish a flexible, decentralized system of Federal, State, and local manpower activities. The law provides a comprehensive range of manpower and supportive services to address the needs of the residents of a particular jurisdiction. The City of Albany is the prime sponsor under CETA for both the City and County of Albany. As such it provides a number of services to the economically disadvantaged and the unemployed or underemployed residents of the County. These services include: vocational training programs, high school equivalency courses, on-the-job training in the public and private sectors, in-school and out-of-school programs for youth, work/education programs for veterans, and counseling and supportive services for program participants.

Source of official student records: Director, Human Resource Center, North Lake and Central Avenues, Albany, New York 12206.

Electronic Servicing

Location: Human Resource Center, North Lake and Central Avenues, Albany, NY.

Length: 1200 hours (44 weeks).

Dates: May 1977 – Present.

Objective: To provide the student with the knowledge and skills necessary to function as an electronic technician for the electronic servicing field.

Instruction: Nature of matter; the fundamentals of A.C. and D.C. circuits necessary for the practice of electronic servicing; the function and operation of electronic devices; A.C. and D.C. component theory and testing; analysis of electronic circuits, such as audio amplifiers, oscillators, R.F. and I.F. circuits; the operation and use of modern test equipment, such as the wide band cathode ray oscilloscope, the cathode ray tube tester-rejuvenator, the multi meter and its associated high voltage probe, the color television Dot and Bar Generator, the television analyzer, the vacuum tube checker, the transistor checker, the AM-FM stereo generator, and the demagnetizing coil. Mathematics and science taught as needed to understand major topics in course. Heavy emphasis placed on modern practical troubleshooting methods on live jobs in a shop situation and on the development of hand skills through the use of hand tools and soldering and desoldering equipment. Actual field experience for 120 hours at public and private job sites.

Credit recommendation: In the lower division baccalaureate/associate degree category, 9 semester hours (lecture) and 21 semester hours (shop) in Electronic Servicing (5/77).

Life Management Skills

Location: Human Resource Center, North Lake and Central Avenues, Albany, NY; Adult Learning Center, 222 South Pearl Street, Albany, NY.

Length: 21 hours (3 days).

Dates: December 1974 – Present.

Objective: To enable the participant to develop greater self-awareness, a more positive self-image, an understanding of the needs, values, strengths, and goals of others; to enhance the participant's employability skills.

Instruction: Two-day human potential workshop during which participants have an opportunity to discover, share, and reinforce their strengths, assets, values, successes, needs, and goals. One-day workshop on employability skills during which participants consider career alternatives, employer expectations, communications, and interviewing skills. The course format includes small group discussion, videotaped practice interviews, and role-play exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Human Services, Psychology, Social Sciences, or Sociology (4/77).

Office Occupations/Shorthand

Location: Human Resource Center, North Lake and Central Avenues, Albany, NY; Adult Learning Center, 222 South Pearl Street, Albany, NY.

Length: 582 hours (20 weeks).

Dates: December 1974—Present.

Objective: To train the student for entry-level secretarial positions.

Instruction: Introduction to Gregg Shorthand theory and skill development, with emphasis on dictation and transcription from notes at progressively faster rates of speed; advanced typing projects and practice in tabulation, financial statements, minutes of meetings, outlines, business reports, business letters, rough drafts, manuscripts, itineraries, and letters of application; business office machines; secretarial office practice; business English. Upon completion of the course, students have attained a minimum shorthand dictation speed of 80 wpm and a minimum typing speed of 40 wpm.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Beginning Shorthand and 3 semester hours in Advanced Office or Clerical Practice (4/77).

Office Occupations/Typewriting

Location: Human Resource Center, North Lake and Central Avenues, Albany, NY; Adult Learning Center, 222 South Pearl Street, Albany, NY.

Length: 582 hours (20 weeks).

Dates: December 1974—Present.

Objective: To provide the student with the skills needed for an entry-level position as a typist or general office worker.

Instruction: Typewriting: mastery of the keyboard with a minimum attainment of 40 gross wpm in a 5-minute timed writing with a maximum of 5 errors, letters, memos, tabulations, manuscripts, typing on a line, and proofreading and correcting. Office or clerical practice; longhand dictation, receptionist duties, machine transcription, filing, general office practice, operation of business machines (calculators, adding machines, and duplicating machines), stencils and dittos, and applications to keypunch. Business English. Daily production work is graded for style, quantity, and accuracy.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Introductory Typing and 3 semester hours in Office or Clerical Practice (4/77).

CITY OF YONKERS POLICE DEPARTMENT

The City of Yonkers Police Department serves the approximately 250,000 citizens of the fourth largest municipality in the State of New York. Over 550 persons are employed by the department.

INCENTIVE TRAINING PROGRAM

The course listed below is part of an incentive training program designed to encourage participation in a college program by members of all ranks of the Yonkers Police Department. It is conducted under the supervision of the Training Division. The goal is to make officers aware of the current changes in the field of law enforcement.

Source of official student records: Director of Training, Special Operations Command, 730 Grassy Sprain Road East, Yonkers, New York 10710.

Criminal Investigation

Location: Special Operations Division Building, Yonkers, NY.

Length: 45 hours (15 weeks).

Dates: September 1976 – Present.

Objective: To provide the student with an understanding of the theory and practice of criminal investigation.

Instruction: General investigative procedures; types, importance, and protection of physical evidence; interviews, interrogations, and confessions; surveillance techniques; history and classification of fingerprints; the penal law relating to criminal investigations; investigation of specialized crimes, including arson and homicide. Use of lecture, discussion, and practical exercises.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Criminal Justice or Criminal Science (10/76).

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CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

Consolidated Edison is an investor-owned public utility with headquarters in New York City. The company supplies electricity and gas to customers in New York City and Westchester County, and also supplies steam to heat and air-condition major buildings in lower and midtown Manhattan. Con Edison has 25,000 employees.

The company offers a variety of educational activities to its employees, covering such areas as customer service, gas operations, administrative skills, welding, and electric construction. The Management and Professional Development staff develops management programs and courses designed to meet specific company needs by improving employees' overall managerial effectiveness. The staff of the Technical Training Center develops technical programs and courses designed to meet specific company needs in such areas as automotive technology. The Training Resources staff provides inhouse consulting services in support of departments and corporate training requirements.

MANAGEMENT AND PROFESSIONAL DEVELOPMENT GROUP

Source of official student records: Training Administrator of Management and Professional Development, Consolidated Edison, Inc., Room 1849-S, 4 Irving Place, New York, New York 10003.

Assessor Training Workshop (MD-13, HRIS-8502)

Location: Company headquarters, 4 Irving Place, New York, NY; or at a company-arranged facility.

Length: **Part 1:** 40 hours (1 week).
Part 2: 40 hours (1 week).

Dates: March 1974—Present.

Objective: To train management personnel to observe, record, and evaluate behavior objectively in order to assess the interpersonal and administrative abilities of employees.

Instruction: **Part 1:** Origins, history, and application of assessment techniques; principles, elements, and pitfalls of the perceptual process; definition and determination of abilities to be evaluated; function of the assessment center and its relation to the supervisory job; in-basket exercises and interviews; the background interview; report writing. Workshop format includes role playing, presentations, group discussion, critique, and audio-visual aids. **Part 2:** Observation of individuals in group discussion; preparing for and conducting background interviews; analysis of in-baskets with subsequent interviews; observation of simulated interviews; report writing; participation in a final evaluation discussion. Students work in individual consultation with the administrator/instructor.

Credit recommendation: **Part 1:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Personnel Administration (4/75). **Part 2:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Personnel Administration (4/75).

Communications Workshop (HRIS-8506)

(Formerly Communication [MD 10-1])
Refer to Management of Managers.

Conflict Management Workshop—Phase I (HRIS-8508)

(Formerly Conflict Management [MD-3])
Refer to Management of Managers.

Effective Writing Workshop (STC 11, 8100)

Location: Training facilities throughout the company.

Length: 32 hours (4 weeks); additional 28 hours of independent study and programmed instruction.

Dates: July 1973—Present.

Objective: To enable the student to achieve organization, clarity and consciseness in business correspondence and report writing, including technical reports, through the application of specific techniques and editing skills.

Instruction: An intensive course in editing designed to save and strengthen use of words and to make business writing clearer and more concise. Besides editing techniques, eight English points are reviewed, after which the students complete a "language checkup." Self-study English lessons are recommended when needed. The course includes daily written exercises (report excerpts) to teach individual editing techniques, a summary report (rewritten with students working in teams), and a 250-300 word report which is submitted near the end of the course for team editing and final approval.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Business, Business Education, or Engineering (9/75).

Management of Managers

1. **Communications Workshop (MD 10-1, HRIS-8506)**
2. **Conflict Management Workshop—Phase I (MD-3, HRIS-8508)**
3. **Motivation Workshop (MD-6, HRIS-8558)**
4. **Problem Solving Workshop (MD-18, HRIS-8566)**

Location: Training facilities throughout the company.

Length: 1. 16 hours (2 days).
2. 24 hours (3 days).
3. 8 hours (1 day).
4. 16 hours (2 days).

Dates: 1. September 1974—Present.
2. January 1974—Present.
3. March 1975—Present.
4. September 1974—Present.

Objective: To provide students who have previous experience in management with an opportunity to apply relevant theory to practical situations.

Instruction: Utilization of conflict as a management tool; problem solving and decision making at an advanced management level; communications and motivation as factors in productivity. Instruction and training are accomplished through lectures, exercises, role playing, audio-visual aids, task force assignments, individual counseling, and followup.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Management (4/75).

Management Skills Training—Phase I (MD-8, HRIS-8550)

Location: Company headquarters, 4 Irving Place, New York, NY.

Length: 40 hours (1 week).

Dates: December 1971—Present.

Objective: To assist supervisors in developing basic managerial skills required for performing their job functions.

Instruction: Management philosophy; problem solving; leadership styles; employee motivation; labor relations; communications; self-awareness. Combination of managerial theory input with simulations, role playing, group discussions, and subgroup exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Management (4/75).

Management Skills Training—Phase II (MD-8, HRIS-8552)

Location: Company headquarters, 4 Irving Place, New York, NY.

Length: 40 hours (1 week).

Dates: December 1971—Present.

Objective: To assist supervisors in identifying basic managerial responsibilities required for effective performance in a supervisory capacity.

Instruction: Combination of lectures on managerial responsibilities with role playing and group discussion. Emphasis on special topics such as equal employment opportunity, alcoholism and drug use, salary administration, problem solving, listening skills, and decision making.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Management (4/75).

Motivation Workshop (MD-6, HRIS-8558)

Refer to Management of Managers.

Performance Appraisal Program (MD-11, HRIS-8562)

Location: Training facilities at division or department headquarters.

Length: 23 hours (15 weeks).

Dates: May 1973—Present.

Objective: To assist managers in effectively using a corporate performance review system as a managing tool to measure and improve performance, to increase productivity, and to motivate and develop subordinates.

Instruction: Techniques and application of job analysis and evaluation. Defining job segments; developing measurable performance standards; performance analysis; setting specific objectives; appraisal development interview.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 1 semester hour in Management (4/75).

Problem Solving Workshop (MD-18, HRIS-8566)

Refer to Management of Managers.

TECHNICAL TRAINING CENTER

Source of official student records: Administrator, Technical Training Center, Consolidated Edison, Inc., 178 Theodore Fremd Avenue, Rye, New York 10580.

Advanced Automotive and Truck Technology (8777)

Location: Rye Training Center, 178 Theodore Fremd Avenue, Rye, NY.

Length: 160 hours (4 weeks).

Dates: February 1976—Present.

Objective: To train transportation personnel to perform advanced preventive maintenance and repair of automotive equipment and vehicles.

Instruction: Tune-up specifications; carburetion; ignition system; electrical system; brakes; inspection procedures; emission control. (Prerequisites: Basic Automotive Technology 8704, and Basic Electricity 8718.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Advanced Automotive Technology (4/76).

Air Conditioning (8702)

Location: Vernon Training Center, 43-82 Vernon Boulevard, New York, NY.

Length: 160 hours (4 weeks).

Dates: May 1975 - Present.

Objective: To train personnel in the operation, maintenance, and repair of air conditioning systems.

Instruction: Principles of air conditioning systems, including automotive vehicles; maintenance and repair; commercial air conditioning units; refrigerants; heating system components; wiring diagrams; control circuits; testing; accessories and electrical systems.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Air Conditioning (4/76).

Basic Automotive Technology (8704)

Location: Rye Training Center, 178 Theodore Fremd Avenue, Rye, NY.

Length: 200 hours (5 weeks).

Dates: January 1975—Present.

Objective: To train personnel to perform basic preventive maintenance and minor repair of automotive equipment and vehicles.

Instruction: Fasteners and couplings; basic physical principles; measuring devices; suspension systems; basic hand tools; electrical systems; engine operations; lubrication and cooling systems; transmission; drive shaft and axle operation; safety; tune-up; fuel and exhaust systems; power transmission and steering systems; brake; frame; suspension.

Credit recommendation: In the vocational certificate category, 6 semester hours in Basic Automotive Technology (4/76).

Basic Blueprint Reading (8708)

Location: Vernon Training Center, 43-82 Vernon Boulevard, New York, NY.

Length: 160 hours (4 weeks).

Dates: May 1974—Present.

Objective: To train personnel to read and utilize basic blueprints.

Instruction: Reading and interpretation of basic blueprints, machine drawings, building drawings, electrical and pipe system drawings, and sheet metal drawings; sketching; schematics; symbols; units of measure; physical structure of metals.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Basic Blueprint Reading (4/76).

Basic Electricity (8718)

Location: Vernon Training Center, 43-82 Vernon Boulevard, New York, NY.

Length: 160 hours (4 weeks).

Dates: October 1975 – Present.

Objective: To train personnel to maintain and repair basic electrical systems.

Instruction: Electrical symbols; electrical blueprints; circuits; measurements; multi meters; magnetism and induction; generators; wiring diagrams and motor controls; switches; circuit breakers; maintenance and safety.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Basic Electricity (4/76).

Building and Heating Ventilation (8770)

Location: Vernon Training Center, 43-82 Vernon Boulevard, New York, NY.

Length: 160 hours (4 weeks).

Dates: January 1975 – Present.

Objective: To train personnel to repair, install, and maintain environmental equipment systems.

Instruction: Principles of air conditioning systems; maintenance and repair; commercial air conditioning units; refrigerants; heating system components; wiring diagrams; control circuits; testing; accessories and electrical systems.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Air Conditioning (4/76).

1. Caterpillar Diesel Engine (8754)
2. Cummins Diesel Engine (8756)
3. Detroit Diesel Engine (8714)
4. Mack Diesel Engine (8760)

Location: Vernon Training Center, 43-82 Vernon Boulevard, New York, NY.

Length: 1. 40 hours (1 week).
2. 40 hours (1 week).
3. 40 hours (1 week).
4. 40 hours (1 week).

Dates: January 1976 – Present.

Objective: To train personnel for the repair and maintenance of diesel-powered equipment.

Instruction: History and application; combustion engine theory, gasoline versus diesel; analysis of diesel engine air, exhaust, lubrication, cooling, and fuel injection systems; engine components; testing and diagnostics.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Basic Diesel Engines (4/76). NOTE: Courses 1, 2, 3, and 4 must all be completed in order to receive credit.

Cummins Diesel Engine (8756)

Refer to Caterpillar Diesel Engine (8754).

Detroit Diesel Engine (8714)

Refer to Caterpillar Diesel Engine (8754).

1. Electric Ignition Systems (8757)
2. Fuel Conservation Program (8726)
3. Gasoline Engine Tune-Up (8775)

Location: 1 & 2. Vernon Training Center, 43-82 Vernon Boulevard, New York, NY. 3. Rye Training Center, 178 Theodore Fremd Avenue, Rye, NY.

Length: 1. 40 hours (1 week).
2. 40 hours (1 week).
3. 40 hours (1 week).

Dates: February 1976 – Present.

Objective: To train personnel in the diagnosis and repair of ignition systems and in the tune-up of gasoline engines.

Instruction: **Course 1:** Trouble-shooting and general operating principles of batteries and ignition system components. **Courses 2 & 3:** Fuel system fundamentals; principles of carburetion; vehicle emission control systems; diagnosis and tune-up.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Automotive Ignition Systems and Tune-Up (4/76). NOTE: Course 1 and either Course 2 or Course 3 must be completed in order to receive credit.

Fleet Maintenance Management (8724)

Location: Rye Training Center, 178 Theodore Fremd Avenue, Rye, NY.

Length: 40 hours (1 week).

Dates: November 1974 – Present.

Objective: To train supervisory and management personnel in programmed maintenance management.

Instruction: Data retrieval; truck and vehicle maintenance and replacement; vehicle inventory control; oil analysis; work sampling and productivity; training systems; preventive maintenance; organization and leadership.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Management (Fleet) (4/76).

Fuel Conservation Program (8726)

Refer to Electric Ignition Systems (8757).

Gasoline Engine Tune-Up (8775)

Refer to Electric Ignition Systems (8757).

Mack Diesel Engine (8760)

Refer to Caterpillar Diesel Engine (8754).

Mobile Hydraulics (8730)

Location: Rye Training Center, 178 Theodore Fremd Avenue, Rye, NY.

Length: 160 hours (4 weeks).

Dates: September 1975 – Present.

Objective: To train personnel in the theory and operation of closed hydraulic systems.

Instruction: Principles of hydraulics; hydraulic pumps; flow; reservoirs; accessories; maintenance; valve operations; mobile circuits; hydrostatic drives; fluids; electrical circuits; repair.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Basic Hydraulics (4/76).

Pneumatic Technology (8778)

Location: Vernon Training Center, 43-82 Vernon Boulevard, New York, NY.

Length: 120 hours (3 weeks).

Dates: December 1975 – Present.

Objective: To train personnel in the operation, maintenance and repair of pneumatic systems.

Instruction: Pneumatic principles; reciprocating air compressors; rotary air compressors; primary and secondary air treatment; piping, hoses, and fitting; control valves; pressure relief valves; cylinders; motors.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Basic Pneumatics (4/76).

TRAINING RESOURCES GROUP

Source of official student records: Training Administrator of Training Resources, Consolidated Edison, Inc., Room 947-S, 4 Irving Place, New York, New York 10003.

Instructional Methods
(Formerly Basic Train the Trainer Workshop)

Location: Training facilities throughout the company.

Length: 80 hours (2 weeks).

Dates: January 1973 – Present.

Objective: To provide the participant with knowledge of the techniques of instruction, course development, and testing needed to be an effective trainer.

Instruction: Techniques of presentation and obtaining feedback; the adult learner; setting and writing objectives; preparation of visuals; selection of media; test preparation, evaluation and revision; human relations. Student presentations are critiqued by other participants and the instructors.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Educational Methods, Management (Elective), or Personnel Administration (8/76).

CONTACT-SYRACUSE, INC.

Contact-Syracuse is a crisis counseling ministry serving the residents of Onondaga County, New York and nearby areas. This service provides an all-purpose direct 24-hours-a-day, seven-days-a-week, telephone crisis counseling service. Personal counseling is available for persons who need immediate help beyond that which can be given by telephone.

Contact conducts a training program to give volunteers the skills necessary to effectively counsel by telephone in various crisis situations. It also offers workshops in the area of the applied behavioral sciences to interested persons in the community.

Source of official student records: Director, Office of Contact, 3049 East Genesee Street, Syracuse, New York 13224.

Listening Skills for Telephone Counseling and Crisis Intervention

Location: Church Center, 3049 East Genesee Street, Syracuse, NY.

Length: 53 hours (15 weeks); includes 8-hour practicum.

Dates: January 1971—Present.

Objective: To train persons in lay counseling skills in order to serve as telephone counselors.

Instruction: Knowledge and intensive practice in telephone counseling. Attending and listening; problem solving; information gathering and giving; making referrals; crisis intervention, especially in possible suicide situations.

Credit recommendation: In the upper division baccalaureate degree category, 3 semester hours in Social Science (6/76).

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CULINARY INSTITUTE OF AMERICA

The Culinary Institute of America provides preparation and training for individuals interested in careers in the food service/hospitality industry. The Institute's program of study leads to the awarding of an A.O.S. degree.

The Institute's teaching staff consists of professional culinarians with little or no training in teaching techniques. The course listed below was developed to provide staff instructors with an opportunity to improve their pedagogical skills.

The course is *not* part of the Institute's curriculum, which cannot be evaluated through this program. It is offered *only* to staff members.

Source of official student records: Registrar, Culinary Institute of America, Hyde Park, New York 12538.

Associates Educational Skills Seminar

Location: Culinary Institute of America, Hyde Park, NY.

Length: 24 hours (4 weeks).

Dates: October 1976—Present.

Objective: To enable staff instructors to upgrade and improve their instructional skills.

Instruction: Overview of the purpose, rules, and ethics of teaching; course outlines and objectives; lecture techniques; demonstration techniques; grading and evaluation; test construction; support materials; discipline; student motivation; questioning techniques. The course includes taped lectures, follow-up discussions, observations of each participant teaching a regular class, and individual consultations with the course instructor.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Vocational Education Methods (5/77).

EASTMAN KODAK COMPANY

The Eastman Kodak Company, headquartered in Rochester, New York, is among the 25 largest American companies and is the world's leader in photography. A highly diversified company, Kodak has marketing and distribution facilities around the globe, and manufacturing locations in 10 countries. The company employs 48,000 people in the Rochester area, and the worldwide company employment total is 120,700.

Kodak sponsors many courses for its employees to help insure sound and adequate training both for the person's present work and for future responsibilities which may be undertaken. Thorough on-the-job training is provided for all positions. In the various Kodak units, vocational, technical, professional, photographic, and management training is also provided according to the needs of the individual and the company.

Each division of the company has an active training or education department. It is these departments which arrange or conduct the courses listed below. A corporate training staff serves in liaison capacity between the divisional units and outside agencies.

Source of official student records: Director, Company Training, Eastman Kodak Company, 343 State Street, Rochester, New York 14650.

Effective Education Seminar

Location: Marketing Education Center, Rochester, NY; Marketing Education Center, Atlanta, GA; Marketing Education Center, San Francisco, CA.

Length: 50 hours (1 week); residential.

Dates: May 1974—Present.

Objective: To provide persons responsible for directing or conducting training with the ability to analyze performance problems systematically and to design and implement solutions to such problems.

Instruction: Systems approach to performance analysis and instructional design. Procedures are prescriptive rather than proscriptive; they enable a student to conduct a systematic problem analysis, to consider educational (and noneducational) solutions to performance problems, and to make basic decisions as to cost-effectiveness.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Education (5/74).

1. Fundamentals of Computer Programming
2. Fundamentals of Computers and Data Processing

Location: Kodak Park Division, Rochester, NY.

Length: 48 hours (8 weeks).

Dates: September 1971—Present.

Objective: To provide students with knowledge of basic computer concepts and programming techniques prior to language courses.

Instruction: Course 1: Introduction to the various elements of computer program development. Importance of proper problem definition and planning to meet specific objectives; flowcharting used to represent the analysis and logical operations necessary to solve the problem; graphic solution then translated into coded instructions in a pseudoprogramming language; record layout design; data organization; systems and program documentation; operating systems concepts. **Course 2:** Background of basic concepts of processing data. Data representation and recording; computer equipment; how the computer is instructed to perform its task; and how this tool can assist in problem solving and providing information. Exercises and case studies are used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Introduction to Computer Programming (5/74). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Fundamentals of Computers and Data Processing

Refer to Fundamentals of Computer Programming.

Fundamentals of Optical Engineering

Location: Kodak Apparatus Division, Rochester, NY.

Length: 34 hours (15 weeks).

Dates: December 1966 – Present.

Objective: To provide engineers and staff personnel with a better understanding of optical principles and systems.

Instruction: Basic optical systems; refraction and reflection of light; magnifiers; properties of lenses, mirrors, and prisms; images and their formation; optical instruments; image brightness, projection systems aperture stops, aberrations, vision, and lens manufacture.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Elementary Optical Engineering (5/74).

Instructional Process Workshop

Location: Marketing Education Center, Rochester, NY; Marketing Education Center, San Francisco, CA.

Length: Individualized independent study program (35-50 hours).

Dates: May 1973 – Present.

Objective: To develop basic teaching skills for marketing education specialists in preparation for their first training assignments.

Instruction: Basic course in instructional technology, with an introduction to educational psychology, learning theory, and instructional strategies. Objectives; learning strategy; adult learning principles; developing a teaching plan; developing teaching materials; educational development process; media production process; logistical support process; presentation techniques; evaluation.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Education (5/74).

Photographic Science for New Professional and Technical People

Location: Kodak Park Division, Rochester, NY.

Length: **Version 1:** 60 hours (12 weeks).
Version 2: 55 hours (11 weeks).

Dates: **Version 1:** September 1968 – September 1976.
Version 2: October 1976 – Present.

Objective: To provide new scientific and engineering personnel with the fundamentals of photographic science, theory, and technology early in their company careers.

Instruction: Study of photographic science, practices, theory, and technology. History of photography and description of the general photographic process, film, and paper manufacturing; negative-positive and reversal processes; emulsion composition, sensitometry and latent image theory; processing chemistry, image evaluation, exposure effects, and processing effects; spectrophotometry; color vision, color mixing, and principles of color photography; color films, papers, and processes; color sensitometry, dye behavior, and colorimetry; elements of duplicating and masking.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Photographic Science (5/74).

Photographic Technology I

Location: Photographic Training Area, Kodak Apparatus Division, Rochester, NY.

Length: 36 hours (6 weeks); additional 40 hours of individual study.

Dates: March 1971 – Present.

Objective: To provide the basic fundamentals of photographic technology to company employees whose jobs involve the use of knowledge of photographic materials, apparatus, and processes.

Instruction: Black and white photography, materials, processes, and apparatus. Nature and behavior of light; camera exposure; processing and printing; photographic films and papers; latent image theory; sensitometry; chemistry; exposure and development effects and their application to current still and motion picture products. Multimedia learning experience, utilizing lecture and self-teaching instruction and hands-on training.

Credit recommendation: In the lower division baccalaureate/associate degree category, 5 semester hours in Basic Photography (5/74).

Technical Mathematics I

Location: Kodak Park Division, Rochester, NY.

Length: 40 hours (10 weeks).

Dates: March 1972 – Present.

Objective: To provide skilled trade apprentices with a course that can be applied to meet the mathematics requirements in an A.A.S. degree program (e.g., Electrical Technology, Mechanical Technology).

Instruction: Algebraic expressions and fundamental operations; linear equations and inequalities in one variable; analytic geometry in the plane (ordered pairs, coordinate systems, linear functions); angles and angle measurement, trigonometric functions, and trig functions of any angle; graphs of the trig functions, systems of equations and inequalities (two equations in two unknowns and three equations in three unknowns).

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester in Technical Mathematics (5/74).

Technical Mathematics II

Location: Kodak Park Division; Rochester, NY.

Length: 40 hours (10 weeks).

Dates: March 1972 – Present.

Objective: To provide skilled trade apprentices with a course that can be applied to meet the mathematics requirements in an A.A.S. degree program (e.g., Electrical Technology, Mechanical Technology).

Instruction: Trigonometric formulas and oblique angles; vectors; laws of sines and cosines; complex numbers; quadratic equations and inequalities; verbal problems; theory of equations; logarithmic and exponential functions; conic sections (circle, parabola, ellipse, hyperbola).

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Technical Mathematics (5/74).

EQUITABLE LIFE ASSURANCE SOCIETY OF THE UNITED STATES

The Equitable Life Assurance Society of the United States is one of the leading insurers in the nation, with assets in excess of $20 billion. Conducting business in all 50 states, the District of Columbia, and Puerto Rico, the Equitable employs about 13,200 salaried people, and its sales force numbers 8,000.

The Technical Services Department provides technical training courses in programming, systems analysis, and other data processing related skills to all areas of the Society. Courses are conducted during normal working hours at the corporate headquarters in New York City.

Source of official student records: Manager of EDP Training, The Equitable Life Assurance Society, 1285 Avenue of the Americas, New York, New York 10019.

Advanced Job Control Language and Utilities

Refer to Job Control Language and Utilities.

ANS COBOL Coding and Workshop

Location: 1285 Avenue of the Americas, New York, NY.

Length: 147 hours (4 weeks).

Dates: January 1969—Present.

Objective: To enable the student to develop a working capability in the use of the COBOL language and the coding of programs, and to introduce advanced techniques.

Instruction: Introduction to the ANS COBOL language; presentation of the four divisions of the language; detailed analysis of the data and procedure divisions; COBOL internal sort; table handling; dumps; LIBRARIAN; subprogram linkage; indexing. Extensive business problems are solved through the use of the ANS COBOL language.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 5 semester hours in Business Administration, Business Data Processing, or Computer Science (3 lecture, 2 laboratory) (10/76).

Data Processing Concepts

Refer to Introduction to Data Processing.

Introduction to Data Processing

1. **Data Processing Concepts**
2. **Program Logic Through Flowcharting**

Location: 1285 Avenue of the Americas, New York, NY.

Length: 1. 35 hours (1 week).
2. 70 hours (2 weeks).

Dates: January 1974—Present.

Objective: To provide the student with an understanding of the fundamentals of data processing, basic flowcharting techniques, and problem-solving approaches.

Instruction: History of computers; data representation; functional parts of the computer; concepts of machine language and assembly language. Through the technique of flowcharting, the following topics are covered: file processing requirements, loop control, printer requirements, sequence checking, control break processing, subroutine logic, editing, print routine logic, master file updating, subscripting, and table searching.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Business Administration, Business Data Processing, or Computer Science (3 lecture, 1 laboratory) (10/76). NOTE: Both courses must be completed in order to receive credit.

Introduction to Job Control Language

Refer to Job Control Language and Utilities.

Job Control Language and Utilities

1. Introduction to Job Control Language

2. Advanced Job Control Language and Utilities

Location: 1285 Avenue of the Americas, New York, NY.

Length: 1. 14 hours (2 days).
2. 28 hours (4 days).

Dates: January 1974 – Present.

Objective: To prepare the student to use OS Job Control Language Commands and selected utility programs.

Instruction: Supervisory control programs (job, task, and data management); job control language; catalogued procedures; sort merge; linkage editor; peripheral support system and selected utility programs.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Business Administration, Business Data Processing, or Computer Science (10/76). NOTE: Both courses must be completed in order to receive credit.

Program Logic Through Flowcharting

Refer to Introduction to Data Processing.

Systems Analysis Techniques

Location: 1285 Avenue of the Americas, New York, NY.

Length: 90 hours (3 weeks).

Dates: January 1971 – Present.

Objective: To prepare the student to perform computer systems analysis and design functions within the context of a systems development methodology.

Instruction: Feasibility studies; depth studies of existing systems; business system designs; forms designs; computer system designs; file conversions; external procedures and installation; oral and written communications; interviewing; project planning and control. Extensive laboratory exercises are included.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Business Data Processing, Computer Science, or Management (10/76).

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FAMILY DAY CARE TRAINING CENTER AT RED HOOK

The Family Day Care Training Center at Red Hook was established in 1972 to provide day care training for persons who care for children in their homes. Training modules and resource materials have been developed to enable the Center's outreach teachers to offer training services throughout New York City in 34 Cluster Programs. Training sessions are geared to equip the home day care providers, known as provider teacher-parents, with a range of skills that will enable them to give the children an educational experience rather than to merely provide a babysitting service. Training is conducted at the various centers using community resources and responding to particular needs as identified by Family Day Care staff and parents.

Source of official student records: Educational Director, Family Day Care Training Center at Red Hook, 402 Van Brunt Street, Brooklyn, New York 11231.

Children's Literature

Location: 402 Van Brunt Street, Brooklyn, NY; 34 Cluster Centers throughout New York City.

Length: 30 hours (15 weeks).

Dates: April 1976 – Present.

Objective: To enable the day care parent to understand that children's literature assists in strengthening the child's basic motivation for learning by developing language skills; to familiarize the parent with good literature for young children through the analysis of children's books.

Instruction: Relevance of literature in a child's life; book assessment skills; racism and sexism in children's literature; reading readiness concepts and skills; types of books and their uses; producing a book; agencies and persons in the field; poetry for children; storytelling; nursery rhymes.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Children's Literature (1/76).

The Creative Experience

Location: 402 Van Brunt Street, Brooklyn, NY; 34 Cluster Centers throughout New York City.

Length: 40 hours (20 weeks).

Dates: January 1976 – Present.

Objective: To enable the day care parent to understand the importance of creative activities in a child's development and ways in which creative expression can be encouraged.

Instruction: Exploration of ways in which creative activities can be used constructively with children, with emphasis on practical home experiences. Clay play; block building; fingerpainting; potato printing; water play; music; puppetry; graphic techniques; crayon resist; ink wash-off; murals; montage; papier mâché; paper bag masks; arts and crafts; edible arts; line fantasies; school-age crafts; woodworking.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Early Childhood Education (1/76).

Health, Safety, and Nutrition Issues in Family Day Care

Location: 402 Van Brunt Street, Brooklyn, NY; 34 Cluster Centers throughout New York City.

Length: 30 hours (15 weeks).

Dates: September 1975 – Present.

Objective: To provide the day care parent with knowledge of health, nutrition, and safety and their effect on the growth and development of children.

Instruction: Positive aspects of health (hygiene and good eating habits); children's diseases; emergency first aid procedures; accident prevention; fire emergencies; safety hazards in the home; meal planning and the necessity for a well-balanced diet; consumer education.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester

hours in Early Childhood Education, Family Living, Home Economics, Nursing, or Nutrition (1/76).

Math and Concept Development

Location: 402 Van Brunt Street, Brooklyn, NY; 34 Cluster Centers throughout New York City.

Length: 30 hours (15 weeks).

Dates: September 1975 – Present.

Objective: To familiarize the day care parent with the many materials and activities available to enable them to help children develop mathematical skills and concepts.

Instruction: Subject areas of mathematics; approaches to teaching mathematics; mathematical concepts of logic and problem solving, sets, numbers, arithmetic functions, measurements, geometry, and probability.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Early Childhood/Elementary Education (1/76).

Science for Children in Family Day Care

Location: 402 Van Brunt Street, Brooklyn, NY; 34 Cluster Centers throughout New York City.

Length: 30 hours (15 weeks).

Dates: September 1975 – Present.

Objective: To introduce the day care parent to simple scientific activities for children and to help them understand that children learn scientific concepts through everyday living.

Instruction: Sensory concepts for young children; plant exploration; animal exploration; anatomy and hygiene; physical forces other than life forces; food experiments; water play.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Early Childhood/Elementary Education (1/76).

Stages and Patterns of Growth and Development for Children in Family Day Care

Location: 402 Van Brunt Street, Brooklyn, NY; 34 Cluster Centers throughout New York City.

Length: 30 hours (15 weeks).

Dates: January 1976 – Present.

Objective: To provide the day care parent with knowledge and understanding of the process of child growth and development from birth through adolescence.

Instruction: Fundamentals of child development: prenatal care; infant care; physical, mental and social needs of toddlers, preschoolers, school-age children, and adolescents. Methods and materials: analysis, observation, and implementation of activities that will enrich the development of children from infancy through adolescence. Trends and issues of child development: controversial topics, theories of well-known educators. Sex identification and sex education.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Child Development (1/76).

FEDERAL AVIATION ADMINISTRATION

The Federal Aviation Administration (FAA), a component of the United States Department of Transportation, serves primarily to insure aviation safety, promote air commerce, and support national security through management of the National Airspace System. Training programs are offered to employees in each of the 11 FAA regions in the United States.

AIRWAY FACILITIES TRAINING PROGRAM

The courses listed below are part of the training program of the Airway Facilities Services, which is responsible for the development, installation, and maintenance of Air Traffic Control facilities and equipment and aids to navigation. The Airway Facilities Services conducts an extensive training program, both within each region and in conjunction with the FAA national training facility. The courses fall into five groups: Navigational Aids, Radar, Data Systems, Communications, and Environmental Support.

The training profession, which leads to full performance or certification capability on designated types or pieces of equipment, generally includes directed study, courses taken in residence at the FAA Academy, and on-the-job training, followed by written and performance certification examinations. All technical training programs are conducted according to nationally prescribed standards. Frequently, centrally administered examinations (Prerequisite Validation Examinations) are available by which an employee may demonstrate knowledge or competence sufficient to waive a required course. Directed study courses are designed and administered by the FAA Academy and include supervised, closed-book final examinations. Although taken at home and on the job, the courses include guidance from the Academy and from supervisory personnel at the worksite. On-the-job training programs are designed by the FAA Academy and are administered by local supervisory personnel. On-the-job training objectives include expansion of previously completed training and/or preparation for subsequent courses.

The dates shown for each course indicate the month and year in which the course was first conducted with the course title and number listed. However, many of the courses were conducted prior to the dates shown with essentially the same format, content, and duration, but with different course titles and/or numbers. In these cases, the credit recommendation is followed by the title and number of each course which the FAA accepts as equivalent training for the course listed. Unless otherwise noted, all the courses are conducted at the FAA Academy in Oklahoma City, Oklahoma. *It should be noted that no attempt has been made to evaluate these earlier courses.* They are listed at the FAA's request in order to provide college officials with information which may be useful in evaluating students' transcripts.

Source of official student records: Registrar Unit, AAC-911A, Federal Aviation Administration Academy, Aeronautical Center, P.O. Box 25082, 6500 S. MacArthur, Oklahoma City, Oklahoma 73125.

Advanced ILS/VOR Principles (40204)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: January 1967 – Present.

Objective: To provide the technician with knowledge and skills in ILS/VOR principles necessary for successful completion of specific equipment courses.

Instruction: Vacuum tube power amplifiers; multivibrators; wave-shaping networks; amplitude modulation and demodulation; basic transmission lines; radiation patterns; introduction to VOR principles. The course is equally divided between classroom lectures and laboratory and problem-solving sessions. (Prerequisites: VHR Omnirange, OJT-I 43701 and VHF Omnirange [VOR] 44206.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Communications Electronics (3 lecture, 1 laboratory) (4/75).

FAA equivalent: FV-100 Advanced ILS/VOR Principles.

1. Air Conditioning (40114)
2. Air Conditioning (44106)

Location: 1. FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.
2. (Correspondence).

Length: 1. 120 hours (3 weeks).
2. Directed study (approximately 30 hours).

Dates: May 1969 – Present.

Objective: To train personnel responsible for the installation, maintenance, and repair of air conditioning units of a maximum capacity of 10 tons.

Instruction: Basic terminology and principles of air conditioning. Safety precautions; function of components and controls of air conditioning systems used by the FAA; interpretation and utilization of enthalpy diagrams and psychrometric charts; interpretation of electrical diagrams of major FAA air conditioning systems; selection of refrigerant piping and accessories; operation and use of associated test equipment and tools; maintenance and servicing procedures. (Prerequisite: Electrical Principles 40100.)

Credit recommendation: see pg. 2.

FAA equivalent: Course 1: FC-250 or 40104 Air Conditioning **or** FC-272 Advanced Air Conditioning. **Course 2:** 44114 Air Conditioning (directed study).

AN/GRN-27 (Category II ILS) (40232)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: August 1973 – September 1977.

Objective: To train technicians responsible for the installation, evaluation, modification, and maintenance of the AN/GRN-27 (Category II ILS).

Instruction: Transmitter unit; battery charger; AC/DC converter; identification unit; far field monitor; control unit; remote status and control unit; marker beacon; overall system operation and performance. Half of the course is devoted to laboratory exercises which include the making of checks and adjustments and the diagnosis of malfunctions in the system. (Prerequisites: ILS Concepts 40233, Solid State Devices 44509 or 44712, and Digital Logic Principles 40402.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Engineering Technology (1 lecture, 2 laboratory) (4/75).

FAA equivalent: 48042 Category II ILS.

ARTCC Boilers (43439)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: March 1972 – September 1977.

Objective: To train stationary engineers and technicians responsible for the operation and maintenance of boiler systems.

Instruction: Boiler theory; boiler construction; evaluation and maintenance of boiler systems; fault diagnosis and repair procedures; water testing and treatment; boiler tube replacement methods; preventive maintenance and boiler safety. (Prerequisite: ARTCC Environmental Conditioning and Controls 43438.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Air Conditioning and Heating (1 lecture, 2 laboratory) (7/75).

ARTCC Environmental Conditioning and Controls (43438)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: March 1972 – September 1977

Objective: To train personnel in the maintenance, calibration, and operation of Johnson pneumatic controls and devices for air conditioning.

Instruction: Psychrometrics of air; fundamentals of pneumatic control; installation and operation of pneumatic controllers and controlled devices; interface of electrical control of air handling equipment; operation of test equipment for fault diagnosis and calibration; performance evaluation and maintenance of pneumatic control systems. (Prerequisite: Air Conditioning 40114.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Air Conditioning and Heating (1 lecture, 2 laboratory) (7/75).

ARTCC Heavy-Duty Air Conditioning (43440)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 80 hours (2 weeks).

Dates: September 1972—September 1977.

Objective: To train personnel responsible for the operation, maintenance, and evaluation of air conditioning chiller systems.

Instruction: Centrifugal chillers; motors and controls; water distribution equipment; water conditioning; air handling and auxiliary equipment; performance evaluation and maintenance procedures. (Prerequisite: ARTCC Environmental Conditioning and Controls 43438.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Air Conditioning and Heating (1 lecture, 1 laboratory) (7/75).

ARTCC Standby Power and Distribution System (43449)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 240 hours (6 weeks).

Dates: September 1972—September 1977.

Objective: To train personnel responsible for the installation, maintenance, and performance testing of the standby power and distribution system.

Instruction: Automatic power breakers and control panel circuits; automatic synchronizing panel circuits and related switchgear components; operation, testing, and fault diagnosis and correction. (Prerequisites: Environmental Support Systems Concepts 40117 and 550 Engine Generators 40116.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Engineering Technology (Standby Power Systems) (2 lecture, 2 laboratory) (7/75).

ARTS III for Supervisors (42003)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 240 hours (6 weeks).

Dates: February 1975—Present.

Objective: To provide the supervisor with technical background necessary for the supervision of ARTS III System technicians.

Instruction: Complete system overview. System introduction; display keyboard operation; data processing subsystem; data acquisition subsystem; peripheral adapted module; data entry and display subsystem; computer fundamentals; ARTS III programming; diagnostic utility and operational programs; the inter-facility data set. (Prerequisites: Digital Logic Principles 40402 and Solid State Devices 44509.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 6 semester hours in Computer Technology (4 lecture, 2 laboratory) (6/75).

ARTS III for Technicians (42004)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 840 hours (21 weeks).

Dates: March 1973—September 1977.

Objective: To train technicians responsible for the installation, maintenance, and repair of an Automated Radar Terminal System.

Instruction: Overall system introduction; digital electronics and logic of data acquisition subsystem and peripheral adapter module (data entry and display subsystem, input-output processor, inter-facility data set, ARTS III programming, operational program organization, diagnostic programs, and system evaluation). Course consists of formal classroom lectures, supervised problem sessions, and laboratory exercises conducted on an operating ARTS III system. (Prerequisites: Radar Principles A 40329, Digital Logic Principles 40402, and Solid State Devices 44509.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 21 semester hours in Computer Technology (9 lecture, 12 laboratory) (6/75).

FAA equivalent: The combination of 42002 ARTS III for Technicians and 42005 ARTS III Technician Update **or** the combination of 49000 ARTS III for Technicians (conducted at the factory) and 42005 ARTS III Technician Update.

1. ARTS III Technician Update (42005)
2. ARTS III Technician Update (44413)

Location: 1. FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.
2. (Correspondence).

Length: 1. 120 hours (3 weeks).
2. Directed Study (approximately 160 hours).

Dates: 1. May 1974—September 1977.
2. September 1973—Present.

Objective: To train the technician in basic programming concepts and techniques needed for the use and operational software analysis of the ARTS III System.

Instruction: Software programming; operational features and alignment of the Inter-Facility Data System; use of diagnostic and utility programs for analyzing and evaluating the system. (Prerequisite: ARTS III for Technicians 42004.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 5 semester hours in Computer Technology (3 lecture, 2 laboratory) (6/75). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

ASR-4/5/6 System (40304)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 160 hours (4 weeks).

Dates: December 1966—Present.

Objective: To train technicians responsible for the maintenance of Airport Surveillance Radar Systems.

Instruction: Complete terminal radar block diagrams and timing sequences; detailed study of individual units and circuits. Laboratory sessions include fault diagnosis, use of test equipment, and routine checks and adjustments. (Prerequisites: ASR-4/5/6 OJT-I 43750, Radar Principles A 40329, and Radar Principles B 40330.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Pulse Electronics (1 lecture, 2 laboratory) (6/75).

FAA equivalent: FR-518 Airport Surveillance Radar System.

ATCBI-3 Transmitter/Receiver/Indicator Sites (40318)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: February 1969—Present.

Objective: To train technicians responsible for the maintenance of the ATCBI-3 Transmitter/Receiver and Indicator Site equipment.

Instruction: System concepts; pulse mode generator; transmitter; side lobe suppression; receiver; storage tube defruiter; monitors; control circuits; decoder; beacon test set. Laboratory sessions include system alignment, system performance analysis, fault diagnosis, and use of test equipment. (Prerequisites: ATCBI-3 OJT-I 43756, ATCBI-3 Transmitter/Receiver/Indicator Sites [directed study] 44316, Radar Principles A 40329, and Radar Principles B 40330.)

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Engineering Technology (Communications Electronics) (1 lecture, 2 laboratory) (6/75).

FAA equivalent: FR-527C or 40312 ATCBI-3 or the combination of 40314 ATCBI-3 T/R Site and 40316 ATCBI-3 Indicator Site.

Automatic Program Unit Low Speed (40004)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 80 hours (2 weeks).

Dates: January 1965—Present.

Objective: To train technicians responsible for the installation and maintenance of the Automatic Program Unit Low Speed equipment.

Instruction: Theory and operation of the APULS equipment which sequentially selects a number of remote teletype terminals on a common line. (Prerequisites: Solid State Devices 44509 and Digital Logic Principles 40402.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Data Transmission (1 lecture, 1 laboratory) (6/75).

FAA equivalent: FC-180 Automatic Program Unit Low Speed (APULS).

Back-Up Emergency Communications System ARTCC (40009)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: November 1970—Present.

Objective: To train technicians responsible for the installation, maintenance, and evaluation of the Back-Up Emergency Communications Systems at air route traffic control centers.

Instruction: Functional description of the system; detailed technical analysis of the VHF/UHF transceivers and remote control group, including the digital processor. Laboratory sessions include fault diagnosis, performance analysis, test procedures, use of test equipment, and routine checks and adjustments. (Prerequisites: Solid State Devices 44509 and Digital Logic Principles 40402.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester

hours in Communications Electronics (1 lecture, 2 laboratory) (6/75).

Bright Radar Indicator Tower Equipment, BRITE-1 (40311)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: March 1969 – Present.

Objective: To train technicians responsible for the maintenance of the Bright Radar Indicator Tower equipment.

Instruction: Study and analysis of system functions by major blocks. Differential amplifiers; indicator deflection and rotation circuits; video combining and compensation; storage vidicon theory and circuits; camera and display deflection circuits; 945 line raster and grating bar logic; high voltage supplies. Laboratory sessions develop skills in fault diagnosis, system performance analysis, alignment, test procedures, use of test equipment, and routine checks and adjustments. (Prerequisites: Radar Principles A 40329 and Solid State Devices 44509.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Electronic Technology (Video Electronics) (1 lecture, 2 laboratory) (7/75).

FAA equivalent: FR-529 BRITE 1 or 40327 BRITE 2.

CDC Display for Technicians (43426)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 400 hours (10 weeks).

Dates: December 1969 – Present.

Objective: To train technicians responsible for the installation, maintenance, and repair of the Computer Display Channel Display Subsystem.

Instruction: Digital electronics and logic of: radar controls; radar keyboard multiplexer; display generator; plan view display. Laboratory sessions include routine equipment checks, alignment, test procedures, use of test equipment, and fault diagnosis. (Prerequisites: Introduction to CDC Display 44410, Solid State Devices 44509, and Digital Display 40402.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 10 semester hours in Computer Technology (4 lecture, 6 laboratory) (6/75).

Coded Time Source (43001)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 48 hours (6 days).

Dates: April 1969 – Present.

Objective: To train technicians responsible for the installation and maintenance of the Coded Time Source.

Instruction: Coded Time Source design logic; WWV receiver; error detection and switchover unit; fail-safe power supplies; audio-taped time display unit. Laboratory exercises include maintenance procedures for the system. (Prerequisites: Solid State Devices 44509 and Digital Logic Principles 40402.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Electronics Technology Laboratory (6/75).

FAA equivalent: FP-180 Coded Time Source.

Common Digitizer AN/FYQ-49 (43402)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 640 hours (16 weeks).

Dates: December 1969 – Present.

Objective: To provide the technician with basic background needed to understand the principles of operation of an A/D conversion and processing system for radar beacon systems.

Instruction: A functional analysis of an integrated circuit data processor that accepts analog and digital information to: detect aircraft targets; determine target characteristics; process target information; and produce serial target digital output messages. Laboratory sessions include the making of checks and adjustments and the diagnosis of malfunctions in the system. (Prerequisites: Common Digitizer (directed study) 44405, Radar Principles A 40329, Digital Logic Principles 40402, and Solid State Devices 44509.)

Credit recommendation: In the upper division baccalaureate category, 12 semester hours in Engineering Technology (Pulse and Digital Electronics) (9 lecture, 3 laboratory) (6/75).

FAA equivalent: FR-410 Common Digitizer or 48064 Common Digitizer (conducted at the factory).

Common Digitizer Height AN-FYQ-47 (43404)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 760 hours (19 weeks).

Dates: December 1969 – Present.

Objective: To provide the technician with basic background needed to understand the principles of operation of an A/D conversion and processing system for radar beacon systems.

Instruction: A functional analysis of an integrated circuit data processor that accepts analog and digital information to: detect aircraft targets; determine target characteristics; process target information, including altitude mode reporting; and produce serial target digital output messages. Laboratory sessions include the making of checks and adjustments and the diagnosis of malfunctions in the system. (Prerequisites: Common Digitizer [directed study] 44405, Radar Principles A 40329, Digital Logic Principles 40402, and Solid State Devices 44509.)

Credit recommendation: In the upper division baccalaureate category, 13 semester hours in Engineering Technology (Pulse and Digital Electronics) (9 lecture, 4 laboratory) (6/75).

FAA equivalent: FR-410H Common Digitizer Height.

Communications Equipment (40007)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 320 hours (8 weeks).

Dates: November 1969 – Present.

Objective: To provide the technician with a background in communications electronics and its application to UHF and VHF communications equipment maintenance.

Instruction: Theory and operation of UHF and VHF transmitters and receivers; audio, remote control, and tone channeling equipment. Laboratory sessions include fault diagnosis, performance analysis, test procedures, use of test equipment, and routine checks and adjustments. (Prerequisites: Electronic Fundamentals and Engineering Mathematics 44504 and Solid State Devices 44509.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 8 semester hours in Communications Electronics (6 lecture, 2 laboratory) (6/75).

FAA equivalent: FC-100 or 40001 Communications Equipment.

Computer Display Channel for Engineers (43418)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 320 hours (8 weeks).

Dates: July 1970 – Present.

Objective: To train engineers and software specialists responsible for the installation, maintenance, and evaluation of Computer Display Channel equipment.

Instruction: Basic Assembler Language programming, data strings, system theory and capability; data flow, control paths, and error analysis. Laboratory sessions include identification of all subassemblies and controls, operation of the Computer Display Channel System from the unit maintenance panels, operation of test equipment required to locate faults or system degradation, and the use of test and diagnostic programs. (Prerequisite: System Familiarization and BAL Programming 43458.)

Credit recommendation: In the upper division baccalaureate category, 7 semester hours in Computer Technology and/or Data Processing (3 lecture, 4 laboratory) (7/75).

FAA equivalent: FP-360 CDC for Engineers or 43423 CDC for Technicians.

Computer Display Channel Software (43451)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 320 hours (8 weeks).

Dates: October 1972 – Present.

Objective: To train system performance specialists responsible for the maintenance of Computer Display Channel software.

Instruction: Functional analysis and operation of peripheral equipment and I/O channel processor diagnostic programs. (Prerequisites: NAS En Route Operational Program 43420 and CDC For Engineers 43418.)

Credit recommendation: In the upper division baccalaureate category, 6 semester hours in Computer Technology (2 lecture, 4 laboratory) (7/75).

Computer Update Equipment (43416)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 240 hours (6 weeks).

Dates: August 1971 – Present.

Objective: To train technicians responsible for the installation, maintenance, and repair of the Raytheon computer update equipment.

Instruction: Computer readout display; common logic unit; keyboard and quick-action panel; nonradar keyboard multiplexer interface, logic, and memory; power distribution and AC power. (Prerequisite: Principles of Digital Logic and Data Processing 44411.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 5 semester hours in Computer Technology (2 lecture, 3 laboratory) (6/75).

FAA equivalent: FP-175 Computer Update Equipment.

Data Receiving Group (DRG) Inter-Facility Data Set (IFDS) (43417)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 144 hours (3-1/2 weeks).

Dates: July 1969 – Present.

Objective: To train technicians responsible for the Data Receiving Set and Inter-Facility Data Set digital equipment.

Instruction: A functional analysis of the data receiving group and the inter-facility data set; detailed analysis of all equipment functions. Laboratory sessions include the operation, adjustment, measurements, and fault diagnosis of the equipment. (Prerequisite: Principles of Digital Logic and Data Processing 44411.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Computer Technology (1 lecture, 2 laboratory) (7/75).

DCC Software (43452)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: Version 1: 200 hours (5 weeks).
Version 2: 160 hours (4 weeks).

Dates: February 1973 – September 1977.

Objective: To train systems performance specialists responsible for the maintenance of Display Channel Complex software.

Instruction: Functional analysis and operation of Display Channel Complex diagnostic programs. Emphasis is on problem analysis and operational aspects of the software package as related to the National Airspace System En Route system operation. (Prerequisites: NAS En Route Operational Program 43420, Display Channel Complex for Engineers 43431, and IBM 9020 System Familiarization and BAL Programming 43458.)

Credit recommendation: In the upper division baccalaureate category, 4 semester hours in Computer Technology (1 lecture, 3 laboratory) (7/75).

1. Diesel Engine Generators (44102)
2. 550-KW Diesel Engine Generators (40116)

Location: 1. (Correspondence).
2. FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 1. Directed study (approximately 45 hours).
2. 80 hours (2 weeks).

Dates: 1. October 1965 – Present.
2. September 1972 – September 1977.

Objective: To train personnel responsible for the operation, maintenance, and performance testing of 550 KW diesel engine generators.

Instruction: Overview of diesel engine generators. Operation; fuel systems; air starting system; hydraulic governor; turbocharger; auxiliary equipment; load balancing of cylinders; crankshaft deflection; engine generator coupling alignment; control panels; safety devices. Maintenance and evaluation of overall performance of the engine and auxiliary equipment. (Prerequisites for Course 2: Diesel Engine Generators 44102 and Gasoline and Diesel Engine Generators 40118.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Engineering Technology (Standby Power Systems) (1 lecture, 1 laboratory) (7/75).

FAA equivalent: Course 1: DFE-3 Diesel; Engine Generator (directed study). **Course 2:** FC-243 or 40102 or 40129 550-KW Engine Generator.

Digital Logic Principles (40402)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 80 hours (2 weeks).

Dates: January 1971 – September 1977.

Objective: To provide the technician with a basic background in digital logic which can be applied to specific equipment courses.

Instruction: Number systems and operations; coding; Boolean algebra; Karnaugh maps; logic networks; sequential networks; introduction to computers.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Digital Logic Principles (4/75).

FAA equivalent: FP-100 or 40400 Principles of Data Processing **or** 40404 Fundamentals of Computers Symbolic Logic.

Display Channel Complex for Engineers (43431)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 200 hours (5 weeks).

Dates: September 1972—Present.

Objective: To train systems engineers responsible for the installation and maintenance of the Display Channel Complex of the National Airspace System.

Instruction: Functional and operational aspects of the Display Channel Complex from a computer system standpoint. Emphasis is placed on systems analysis through laboratory exercises. (Prerequisites: CCC for Engineers 43463 and IBM 9020 System Familiarization and BAL Programming 43458.)

Credit recommendation: In the upper division baccalaureate category, 4 semester hours in Computer Technology (1 lecture, 3 laboratory) (7/75).

Doppler VOR System (40207)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 80 hours (2 weeks).

Dates: November 1969—September 1977.

Objective: To train technicians responsible for the installation, maintenance, and evaluation of Doppler VOR equipment.

Instruction: The Doppler principle; FM capture effect; specialized radiation patterns; theoretical and practical differences between the Doppler VOR and conventional VOR systems. (Prerequisite: VHF Omnirange Equipment (VOR) 40205.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Communications Electronics (4/75).

FAA equivalent: FV-210 Doppler VOR System.

Electrical Principles (40100)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 200 hours (5 weeks).

Dates: January 1965—Present.

Objective: To provide background in basic electricity needed by technicians responsible for the maintenance of electromechanical equipment.

Instruction: Review of basic mathematics; fundamental principles of electricity; batteries, Ohm's law, series and parallel circuits; electrical conductors; alternating current, inductance, capacitance, and reactance; use of common electrical measuring instruments; introduction to generators, motors, and transformers; single- and three-phase power distribution; power and control cable repair; practical methods of locating cable troubles. (Prerequisite: Foundation Mathematics 44510 or 44502 —first six lessons.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 5 semester hours in Basic Electricity (3 lecture, 2 laboratory) (6/75).

FAA equivalent: FC-220 Electrical Principles **or** DFE-1 or DFE-22 Basic Electricity (directed study) **or** DFE-21 Facility Electrical Systems (directed study) **or** the combination of 44108, 44109, and 44110 Basic Electricity (directed study).

Electronic Fundamentals and Engineering Mathematics (44504)

Location: (Correspondence).

Length: Directed study (approximately 280 hours).

Dates: January 1964—Present.

Objective: To provide the technician with basic background in electronics which can be applied to the installation, maintenance, and evaluation of electronic equipment.

Instruction: Basic mathematics; algebra; logarithms; determinants; complex algebra; trionometry and graphing of functions in rectangular, polar, and spherical coordinates; Ohm's law; Kirchoff's laws; DC and AC circuits; superposition, Thevenin's and Norton's theorems; series, parallel, and resonant circuits; basic vacuum tubes, semiconductors, and classification of amplifiers. (Prerequisite: Foundation Mathematics 44502.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 5 semester hours in DC/AC Circuit Theory and 3 semester hours in Mathematics (4/75).

FAA · equivalent: DFF-100 Electronic Fundamentals and Engineering Math (directed study).

En Route Radar System ARSR-1/2 (40307)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 160 hours (4 weeks).

Dates: March 1975—Present.

Objective: To train technicians responsible for the installation, maintenance, and evaluation of the ARSR-1/2 En Route Radar System.

Instruction: Complete terminal radar block diagrams and timing sequences; detailed study of individual units and circuits. Laboratory sessions include fault diagnosis, system performance analysis, alignment, test procedures, use of test equipment, and routine checks and adjustments. (Prerequisites: Radar Principles A 40329, Radar Principles B 40330, Digital Logic Principles 40402, and Solid State Devices 44509.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Pulse Electronics (1 lecture, 2 laboratory) (6/75).

FAA equivalent: FR-528 ARSR 1/2.

1. Environmental Support System Concepts (40117)
2. Solid State Fundamentals for Electromechanics (40115)
3. Solid State Fundamentals for Electromechanics (44107)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.
3. (Correspondence).

Length: 1. 80 hours (2 weeks).
2. 80 hours (2 weeks).
3. Directed study (approximately 160 hours).

Dates: 1. March 1972 – September 1977.
2. April 1970 – September 1977.
3. March 1972 – Present.

Objective: To provide an introduction to electronics to technicians responsible for the maintenance of electromechanical equipment.

Instruction: Semi-conductor devices: diodes; bipolar and field effect transistors; SCRs; unijunction transistors. Basic application of rectifiers, basic amplifiers, gates, and multivibrators. (Prerequisite for Course 3: Electrical Principles 40100.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Introduction to Electronics (2 lecture, 2 laboratory) (7/75). NOTE: Courses 1 and 2 or Courses 1 and 3 must both be completed in order to receive credit.

FAA equivalent: Course 3: 44509 Solid State Devices (directed study).

1. Flight Data Entry and Printout (44407)
2. Flight Data Entry and Printout Equipment (43409)

Location: 1. (Correspondence).
2. FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 1. Directed study (approximately 26 hours).
2. 160 hours (4 weeks).

Dates: June 1970 – Present.

Objective: To train technicians responsible for the installation, evaluation, and maintenance of Flight Data Entry and Printout equipment.

Instruction: Control unit keyboard and printer; power supply line timer; logic; TTY adapter. Most of the course is devoted to laboratory exercises which include on-line trouble analysis and the diagnosis of malfunctions in the system. (Prerequisites: Solid State Devices 44509 and Digital Logic Principles 40402.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Electromechanical Technology (1 lecture, 2 laboratory) (6/75). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

FAA equivalent: Course 2: FP-160 Flight Data Entry and Printout.

Flight Data Entry and Printout Equipment (43409)

Refer to Flight Data Entry and Printout (44407).

Foundation Mathematics (44502)

Location: (Correspondence).

Length: Directed study (approximately 150 hours).

Dates: September 1967 – Present.

Objective: To provide the technician with basic skills and knowledge of foundation mathematics essential for successful completion of specific equipment courses.

Instruction: Review of arithmetic; elementary algebra (polynomials, linear and quadratic equations, and factoring) with application to electrical circuit problems involving batteries, motors, efficiency, and power; elementary trigonometric functions and logarithms. Text: Cooke and Adams, *Basic Mathematics for Electronics* (Third Edition).

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Natural Sciences (4/75).

FAA equivalent: DFF-90 Foundations of Mathematics (directed study).

Gasoline and Diesel Engine Generators (40118)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 200 hours (5 weeks).

Dates: July 1974 – September 1977.

Objective: To train personnel responsible for the installation, maintenance, and performance testing of standby engine generators.

Instruction: System principles; control panels for gasoline and diesel engine generator systems; exciters and alternators; magnetic and solid state voltage regulators; batteries and starters; hydraulic and electronic governors; ignition systems; carburetors; high- and low-pressure fuel pumps; fuel injectors; lubricating and cooling systems. Laboratory exercises include maintenance, fault diagnosis, and repair of 40-240 KW auxiliary power systems. (Prerequisite: Solid State Fundamentals for Electromechanics 44107.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Engineering Technology (Standby Power Systems) (2 lecture, 2 laboratory) (7/75).

IBM 2314-A1 Direct Access Storage Facility (43437)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 160 hours (4 weeks).

Dates: March 1972 – Present.

Objective: To train technicians responsible for the operation and maintenance of the IBM 2314 disk control unit and IBM 2312 disk drive.

Instruction: Mechanical and logical analysis of disk drive unit operations; adjustment and error diagnosis of the disk drive unit; logical analysis of storage control unit; resident and on-line microdiagnostic testing; software diagnostic testing; preventive maintenance procedures. (Prerequisite: IBM 9020 A Processing 43461 or IBM 9020 D/E Processing 43462.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Electromechanical Technology (1 lecture, 2 laboratory) (7/75).

IBM 9020 A/D PAM and System Control (43460)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 200 hours (5 weeks).

Dates: October 1974 – Present.

Objective: To train technicians responsible for the maintenance of the Peripheral Adapter Module, the Flight Strip Printer Control Module, and the system console.

Instruction: Operating principles and maintenance procedures for the Peripheral Adapter Module, the Flight Strip Printer Control Module, and the system console associated with the IBM 9020 system; multiplexer principles and parallel data to serial data conversion. Laboratory exercises include on-line trouble analysis and the diagnosis of malfunctions in the system. (Prerequisite: IBM 9020 Input/Output Equipment 43459.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Computer Technology (2 lecture, 2 laboratory) (7/75).

IBM 9020 CCC for Engineers (43463)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 280 hours (7 weeks).

Dates: November 1974 – Present.

Objective: To train engineers and software specialists responsible for the maintenance of the Central Computer (IBM 9020) Complex.

Instruction: Operation of the IBM 9020 system or a subsystem from the System Console or individual element control panels; system configuration, operation, and loading of programs to accomplish all system functions; evaluation of control and data paths within the system; analysis and use of the four system operational states; use of parity generation and checking methods. The course includes lectures and laboratory experiences. (Prerequisite: IBM 9020 System Familiarization and BAL Programming 43458.)

Credit recommendation: In the upper division baccalaureate category, 6 semester hours in Computer Technology (2 lecture, 4 laboratory) (7/75).

FAA equivalent: FP-255 or 43414 CCC for Engineers or FP-250 or 43413 CCC for Technicians.

IBM 9020 D/E Processing (43462)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 800 hours (20 weeks).

Dates: January 1975 – Present.

Objective: To train technicians responsible for the operation and maintenance of the computer, storage, and I/O control elements of the IBM 9020 Central Processor.

Instruction: Computer organization and architecture; registers, buffers, and data flow; timing, sequencing, and addressing; microprogramming;

dumps, diagnostics, and parity checks; principles of core storage; multiplexing and input/output control. Laboratory sessions include test procedures and fault diagnosis. (Prerequisite: IBM 9020 Input/Output Equipment 43459.)

Credit recommendation: In the upper division baccalaureate category, 15 semester hours in Computer Technology (6 lecture, 9 laboratory) (7/75).

FAA equivalent: 43427 IBM 9020 D/E Common.

IBM 9020 E Option Specialty (43430)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: **Version 1:** 240 hours (6 weeks).
Version 2: 200 hours (5 weeks).

Dates: November 1971 – Present.

Objective: To train technicians responsible for the operation and maintenance of the data computer processor element of the IBM 9020 Central Processor.

Instruction: Operating principles and maintenance procedures for the data computer processor. Display element; configuration console; adapter units; power supply; Display Channel Complex display operational program software. Laboratory exercises include test procedures and fault diagnosis. (Prerequisite: IBM 9020 D/E Processing 43462.)

Credit recommendation: In the upper division baccalaureate category, 4 semester hours in Computer Technology (1 lecture, 3 laboratory) (7/75).

IBM 9020 Input/Output Equipment (43459)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 280 hours (7 weeks).

Dates: August 1974 – Present.

Objective: To train technicians responsible for the operation and maintenance of the input/output equipment associated with the Central Computer Complex Processor.

Instruction: Operating principles and maintenance procedures. Tape control and transport units; integrated control units; card read/punch equipment; line printers. (Prerequisite: IBM 9020 System Familiarization and BAL Programming 43458.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 5 semester hours in Electromechanical Technology (2 lecture, 3 laboratory) (7/75).

FAA equivalent: FP-250 or 43413 CCC for Technicians.

IBM 9020 Peripheral Devices (43457)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 200 hours (5 weeks).

Dates: September 1974 – Present.

Objective: To train technicians responsible for the operation and maintenance of specific peripheral and unit record equipment.

Instruction: Operating principles and maintenance procedures. 1980 flight strip printer; 1052 input/output typewriter; IBM 029 card punch; IBM 129 card punch-print-verifier. (Prerequisite: Principles of Digital Logic and Data Processing 44411.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Electromechanical Technology (1 lecture, 2 laboratory) (7/75).

IBM 9020 System Familiarization and BAL Programming (43458)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 320 hours (8 weeks).

Dates: July 1974 – Present.

Objective: To train engineers, technicians, and software specialists responsible for the operation of IBM 9020 facilities.

Instruction: IBM 9020 system familiarization and operation; computer organization; machine language programming; Basic Assembler Language programming; utility language programming; general familiarization of diagnostic software and peripheral devices. (Prerequisite: Principles of Digital Logic and Data Processing 44411.)

Credit recommendation: In the upper division baccalaureate category, 7 semester hours in Computer Technology and/or Data Processing (4 lecture, 3 laboratory) (7/75).

FAA equivalent: FP-250 or 43413 CCC for Technicians **or** FP-255 or 43414 CCC for Engineers **or** 43427 IBM 9020 D/E Common.

ILS (AIL Mark Ib) (40236)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: July 1972 – Present.

Objective: To train technicians responsible for the installation, evaluation, modification, and maintenance of the AIL Mark Ib ILS.

Instruction: Transmitter unit; modulator; monitor;

status control and status unit; oscillator keyer; remote monitor receiver; flight inspection; overall system operation and performance. Half of the course is devoted to laboratory exercises which include the making of checks and adjustments and the diagnosis of malfunctions in the system. (Prerequisites: ILS Concepts 40233 and Solid State Devices 44509 or 44712.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Engineering Technology (1 lecture, 2 laboratory) (4/75).

FAA equivalent: FV-325 or 40211 ILS AIL **or** 40617 AIL Mark IB Interim.

1. ILS Capture Effect Glide Slope (40240)
2. ILS Problem Analysis (40246)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 1. 40 hours (5-6 days).
2. 80 hours (2 weeks).

Dates: 1. September 1973 — Present.
2. November 1973 — September 1977.

Objective: To train engineers and senior technicians responsible for the installation, evaluation, and solution of complex problems associated with Instrument Landing Systems.

Instruction: Capture effect glide slope equipment; V-Ring optimization; monitoring systems; traveling wave antenna; ILS site analysis; interference to localizer/glide slope signals; marker beacon problems; theodolite placement; computer analysis of radiation patterns. Laboratory exercises include checks and adjustments associated with a capture effect glide slope facility, V-Ring optimization, and problem-solving situations in which students analyze flight recordings and determine location of interference to localizer/glide slope signals. (Prerequisite: ILS [Tube Type] 40234 or AN/GRN-27 [Category II ILS] 40232 or ILS [Wilcox Mark Ia] 40235 or ILS [AIL Mark Ib] 40236.)

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Engineering Technology (2 lecture, 1-2 laboratory) (4/75). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

ILS Concepts (40233)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 80 hours (2 weeks).

Dates: July 1972 — Present.

Objective: To provide the technician with communications electronics concepts common to several Instrument Landing Systems which can be applied to specific equipment courses.

Instruction: Difference in depth of modulation; proximity effects; null reference glide slope radiation patterns and monitor networks; V-Ring localizer radiation patterns; monitor networks. The course is equally divided between classroom lectures and laboratory exercises. (Prerequisite: Advanced ILS/VOR Principles 40204.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Communications Electronics (4/75).

FAA equivalent: FV-300 or 40218 or 40206 ILS.

ILS Problem Analysis (40246)

Refer to ILS Capture Effect Glide Slope (40240).

ILS (Tube Type) (40234)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 160 hours (4 weeks).

Dates: July 1972 — September 1977.

Objective: To train technicians responsible for the installation, evaluation, modification, and maintenance of tube-type instrument landing systems.

Instruction: Localizer subjects: transmitter; sideband generator (mechanical and electronic); modulation bridge; hybrid unit; RF distribution; monitor; control circuits; 8-loop antenna array; overall facility operation and performance. Glide slope subjects: transmitter; mechanical modulator; RF distribution; monitor; control circuits; overall facility operation and performance. Marker beacon subjects: transmitter and antenna array. Half of the course is devoted to laboratory exercises which include the making of checks and adjustments and the diagnosis of malfunctions in the system. (Prerequisite: ILS Concepts 40233.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Engineering Technology (1 lecture, 2 laboratory) (4/75).

FAA equivalent: FV-300 or 40218 or 40206 ILS.

ILS (Wilcox Mark Ia) (40235)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: July 1972 — Present.

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Objective: To train technicians responsible for the installation, evaluation, modification, and maintenance of the Wilcox Mark Ia ILS.

Instruction: Transmitter unit; modulator; monitor; status control and status unit; oscillator keyer; remote monitor receiver; flight inspection; overall system operation and performance. Half of the course is devoted to laboratory exercises which include the making of checks and adjustments and the diagnosis of malfunctions in the system. (Prerequisites: ILS Concepts 40233 and Solid State Devices 44509 or 44712.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Engineering Technology (1 lecture, 2 laboratory) (4/75).

FAA equivalent: FV-320 or 40223 or 40216 Wilcox Mark I ILS.

Introduction to the IBM 9020 Central Computer Complex (44404)

Location: (Correspondence)

Length: Directed study (approximately 115 hours).

Dates: April 1968 — Present.

Objective: To provide the technician with an introduction to the IBM Central Computer Complex.

Instruction: Binary and hexadecimal number systems; computer organization; National Airspace System concepts; machine language and Basic Assembler Language programming concepts; system monitoring and control concepts. (Prerequisite: Principles of Digital Logic and Data Processing 44411.)

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Computer Technology and/or Data Processing (7/75).

JOVIAL Programming (43464)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: October 1974 — Present.

Objective: To train engineers and software specialists in the JOVIAL higher level language.

Instruction: Fundamentals of programming in the JOVIAL language used in the real-time operation of the National Airspace System. (Prerequisite: IBM 9020 System Familiarization and BAL Programming 43458.)

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Computer Programming (7/75).

FAA equivalent: 43414 CDC for Engineers.

Model 28/35 Teletype Equipment (40012)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 160 hours (4 weeks).

Dates: June 1971 — Present.

Objective: To train technicians responsible for the installation, maintenance, and evaluation repair of electromechanical communications equipment.

Instruction: The course consists of classroom study and laboratory experience in the operating principles, installation, and maintenance of teletype equipment. (Prerequisite: Basic Electricity 44101 or Electrical Principles 40100 or Communications Equipment 40007.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Electromechanical Technology (1 lecture, 2 laboratory) (6/75).

FAA equivalent: FC-150 or 40002 Teleprinter.

1. Multi-Channel Recorders (43600)
2. Multi-Channel Recorders (44002)

Location: 1. (On-the-job training).
2. (Correspondence).

Length: 1. On-the-job training (approximately 53 hours).
2. Directed study (approximately 62 hours).

Dates: November 1967 — Present.

Objective: To train personnel responsible for the installation, maintenance, and evaluation of Multi-Channel Recorders.

Instruction: Basic principles of magnetic tape recorders and reproducers; specific equipment-type familiarization; minor adjustments; basic test procedures; simple element replacements on several types of recorders/reproducers.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Electromechanical Technology (1 lecture, 1 laboratory) (7/75).

FAA equivalent: Course 2: FC-160 or 40003 Multi-Channel Recorders.

NAS En Route Automation I/O Equipment for Engineers (43412)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 80 hours (2 weeks).

Dates: March 1971 — Present.

Objective: To train systems engineers in the principles of the National Airspace System Automation Input/Output Equipment.

Instruction: Power systems; coded time source; computer update equipment; printing card punch; flight strip printer and I/O typewriter; flight strip printer control module; flight data entry and printout equipment. Laboratory sessions include test procedures and fault diagnosis. (Prerequisite: Principles of Digital Logic and Data Processing 44411.)

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Computer Technology (1 lecture, 1 laboratory) (7/75).

NAS En Route Operational Program for Engineers (43420)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 160 hours (4 weeks).

Dates: October 1972 – September 1977.

Objective: To train engineers and software specialists in the NAS En Route Air Traffic Control operational program.

Instruction: Functions, capabilities, and limitations of the National Airspace System (NAS) En Route Air Traffic Control (ATC) operational program; analysis of system problems associated with the air traffic control functions; resolution of hardware-software conflicts arising with the NAS Environment; monitoring and evaluation of system performance and status of the NAS. This course does not include the radar data processing portion of the ATC operational program. (Prerequisite: JOVIAL Programming 43464.)

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Computer Technology (1 lecture, 2 laboratory) (7/75).

Power Conditioning System (43433)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 320 hours (8 weeks).

Dates: March 1972 – September 1977.

Objective: To train personnel responsible for the maintenance, installation, and performance testing of power conditioning systems.

Instruction: Power conditioning system concepts; functional description and circuit analysis; system operation, testing, and maintenance procedures; fault diagnosis and correction. (Prerequisite: ARTCC Standby Power and Distribution System 43449).

Credit recommendation: In the lower division baccalaureate/associate degree category, 5 semester hours in Electrical Technology (2 lecture, 3 laboratory) (7/75).

Principles of Digital Logic and Data Processing (44411)

Location: (Correspondence).

Length: Directed study (approximately 100 hours).

Dates: July 1972 – Present.

Objective: To provide the technician with a basic background in digital logic which can be applied to specific equipment courses.

Instruction: Number systems and operations; coding; Boolean algebra; simple logic circuits and flip-flops.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Digital Logic Principles (7/75).

FAA equivalent: The combination of DFD-41 and DFD-42 Principles of Data Processing (directed study) **or** the combination of 40402 Digital Logic Principles and 44509 Solid State Devices.

Radar Bright Display Equipment, RBDE-6 (40324)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 160 hours (4 weeks).

Dates: August 1970 – Present.

Objective: To train technicians responsible for the installation and maintenance of the Radar Bright Display Equipment.

Instruction: Study and analysis of system functions by major blocks; read and write deflection, dynamic focus, and video-circuitry; dual-gun storage tube principles, adjustment, and operation; horizontal display; interrelated control functions. Laboratory sessions include fault diagnosis, performance analysis, alignment, test procedures, use of test equipment, and routine checks and adjustments. (Prerequisites: Radar Principles A 40329 and Solid State Devices 44509).

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Video Electronics (2 lecture, 2 laboratory) (6/75).

Radar Data Acquisition System (43400)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: November 1968 – Present.

Objective: To train systems engineers in the principles of the Radar Data Acquisition System.

Instruction: Functional analysis of the Radar Data Processing Subsystem. Subsystem parameters; overall block diagram analysis of search radar, beacon, common digitzer, modem, and data receiver group equipment; evaluation of subsystem performance. Laboratory sessions develop skills in fault diagnosis, system performance analysis, test procedures, and use of test equipment. (Prerequisite: Basic knowledge of mathematics, electronics, and digital logic.)

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Electronics Technology (2 lecture, 1 laboratory) (7/75).

Radar Microwave Link System RML-1/2/3/4 (RML-T/R) (40322)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: September 1969 – Present.

Objective: To train technicians responsible for the maintenance of Radar Microwave Link Systems.

Instruction: Detailed circuit analysis within all modules of the system. Frequency modulation; frequency mixing and multiplexing; carrier channels; single sideband; carrier filtering and reconstruction; modulation-demodulation. Laboratory sessions include system performance analysis, test procedures, calibration, and use of test equipment. (Prerequisites: Radar Principles A 40329, Radar Principles B 40330, and Radar Microwave Link Systems [directed study] 44313.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Communications Electronics (1 lecture, 2 laboratory) (6/75).

FAA equivalent: FR-503 or 40302 RML T/R.

Radar Principles A (40329)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 280 hours (7 weeks).

Dates: December 1970 – Present.

Objective: To develop detailed knowledge of the basic circuits used in communications systems and to provide an introduction to radar principles and circuits.

Instruction: Circuit analysis topics: network theorems; vacuum tubes; transistors; operational amplifiers; regulated power supplies; special solid state devices; transistors in RC circuits; clippers; sweep circuits; transients in RL and RLC circuits; the ringing circuits; the RL differentiator; multivibrators; phantastroms; pulse transformers; blocking oscillators. Display techniques: types of radar indicators; concept of electric and magnetic fields; cathode ray tubes; electromagnetic deflection; synchros and servomechanisms; digital azimuth techniques; video amplifiers; television principles. Laboratory sessions demonstrate the operation of the circuits studied. (Prerequisites: Solid State Devices 44509 and Digital Logic Principles 40402).

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Communications Electronics (3 lecture, 1 laboratory) and 3 semester hours in Radar Principles (2 lecture, 1 laboratory) (6/75).

FAA equivalent: FR-200 Basic Radar **or** 40300 Radar.

Radar Principles B (40330)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 240 hours (6 weeks).

Dates: December 1970 – Present.

Objective: To continue the study of radar principles and circuits begun in Radar Principles A (40329).

Instruction: Pulse modulators; local oscillators; magnetrons; klystrons; amplitrons; transmission lines; wave guides and cavities; switching devices; radar antennas; propagation of microwave energy; radar receivers; MTI circuits (analog and digital). Laboratory sessions are conducted to familiarize students with the operation of the devices. (Prerequisite: Radar Principles A 40329.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 6 semester hours in Radar Principles (4 lecture, 2 laboratory) (6/75).

FAA equivalent: FR-200 Basic Radar **or** 40300 Basic Radar.

RDP Operational Programming (43450)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 80 hours (2 weeks).

Dates: December 1972 – September 1977.

Objective: To train engineers and software specialists in the Radar Data Processing portion of the NAS En Route Air Traffic Control operational program.

Instruction: Functional analysis of the Radar Data Processing software portion of the National Airspace System En Route Air Traffic Control operational program. Functions, capabilities, and limitations of the Radar processing and associated monitor subprograms. (Prerequisite: NAS En Route Operational Program for Engineers 43420.)

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Computer Technology (1 lecture, 1 laboratory) (7/75).

Rho-Theta Monitor Equipment RTC-2 (40238)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 160 hours (4 weeks).

Dates: July 1972—Present.

Objective: To train technicians responsible for the installation, certification, maintenance, and evaluation of the RTC-2 test-monitor-control equipment.

Instruction: Operating principles; comprehensive circuit analysis; techniques of failure diagnosis. The course is equally divided between classroom lectures and laboratory demonstration and performance exercises. (Prerequisite: Rho-Theta Navigation Equipment, RTB-2 40237.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Engineering Technology (1 lecture, 2 laboratory) (4/75).

Rho-Theta Monitor Equipment, RTC-3 (40221)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 200 hours (5 weeks).

Dates: February 1974—Present.

Objective: To train technicians responsible for the installation, certification, evaluation, and maintenance of the RTC-3 Rho-Theta (TACAN) Monitor.

Instruction: Detailed and comprehensive circuit analysis of the RTC-3 equipment; digital and analog integrated circuits; operating principles; techniques of failure diagnosis. The course is equally divided between classroom lectures and laboratory exercises. (Prerequisites: Digital Logic Principles 40402, Solid State Devices 44509 or 44712, and either Rho-Theta Navigation Equipment, RTB-2 40237 or Rho-Theta Navigation Equipment, GRN-9 40239 or Rho-Theta Navigation Equipment, GRN-9 44207 and 43700 together.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Engineering Technology (2 lecture, 2 laboratory) (4/75).

FAA equivalent: FD-260 TACAN RTC-3 or 40220 RTC-3.

1. Rho-Theta Navigation Equipment, GRN-9 (40239)
2. Rho-Theta Navigation Equipment, GRN-9 (44207)
3. Rho-Theta Navigation Equipment, GRN-9 (43700)

Location: 1. FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.
2. (Correspondence).
3. (On-the-job training).

Length: 1. 80 hours (2 weeks).
2. Directed study (approximately 120 hours).
3. On-the-job training (approximately 106 hours).

Dates: 1. July 1973—Present.
2. January 1975—Present.
3. January 1975—Present.

Objective: To train technicians responsible for the installation, certification, maintenance, and evaluation of the GRN-9 beacon and RTA-2 antenna.

Instruction: Operating principles; comprehensive circuit analysis; techniques of failure diagnosis. The course is equally divided between classroom lectures and laboratory demonstration and performance exercises. (Prerequisite: Rho-Theta [TACAN] Principles 40200.) NOTE: The directed study course 44207 and the on-the-job training course 43700 are taken together to provide an alternate way of learning the knowledge and skills presented in the course 40239.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Engineering Technology (1 lecture, 1 laboratory) (4/75). NOTE: If Course 1 is not completed, Courses 2 and 3 must both be completed in order to receive credit.

FAA equivalent: FD-220 Rho-Theta Navigation Equipment, Model GRN-9/RTC-1.

Rho-Theta Navigation Equipment, RTB-2 (40237)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 80 hours (2 weeks).

Dates: July 1972—Present.

Objective: To train technicians responsible for the installation, certification, maintenance, and evaluation of the RTB-2 beacon and RTA-2 antenna.

Instruction: Operating principles; comprehensive circuit analysis; techniques of failure diagnosis. The course is equally divided between classroom lectures and laboratory demonstration and performance exercises. (Prerequisite: Rho-Theta [TACAN] Principles 40200.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Engineering Technology (1 lecture, 1 laboratory) (4/75).

FAA equivalent: FD-250 RTB-Transponder.

Rho-Theta (TACAN) Principles (40200)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 280 hours (7 weeks).

Dates: July 1973 – Present.

Objective: To provide the technician with basic principles necessary for successful completion of specific Rho-Theta (TACAN) Navigation Equipment courses.

Instruction: Principles of pulse and microwave circuits as applied to Rho-Theta Navigation Systems. Tuned amplifiers; oscillators; multivibrators; mixers; discriminators and detectors; wave-shaping and sweep circuits; pulse modulation and demodulation; transmission lines; antennas; magnetic amplifiers. One-third of the course is devoted to laboratory instruction. (Prerequisite: Electronic Fundamentals and Engineering Mathematics 44504.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 7 semester hours in Pulse and Microwave Electronics (5 lecture, 2 laboratory) (4/75).

FAA equivalent: FD-200 TACAN Principles.

Runway Visual Range Equipment, IRA System (40229)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: August 1970 – Present.

Objective: To train technicians responsible for the installation, evaluation, maintenance and certification of the Runway Visual Range, IRA System.

Instruction: Logic circuit boards; time base generator; function generator; background and transmission counters; answer translator, data transmitter, registers, computer selector; and the transmissometer system. Laboratory sesssions include fault diagnosis, performance analysis, test procedures, use of the test equipment, and routine checks and adjustments. (Prerequisites: Runway Visual Range Equipment, IRA System 44213, Digital Logic Principles 40402, and Solid State Devices 44509.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Engineering Technology (1 lecture, 2 laboratory) (6/75).

FAA equivalent: FC-198 or 40209 RVR.

Runway Visual Range Equipment, Type FA-7861 (40213)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: April 1969 – Present.

Objective: To train technicians responsible for the installation, evaluation, maintenance, and certification of the RVR, FA-7861 System.

Instruction: Logic circuit boards; background and transmission counters; buffer storage register; coding matrices; indicators and drivers; data transmitter; light setting receiver; the transmissometer system. Half of the course is devoted to laboratory sessions which develop skills in fault diagnosis, performance analysis, test procedures and equipment, and routine checks and adjustments. (Prerequisites: Digital Logic Principles 40402 and Solid State Devices 44509 or 44712.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Engineering Technology (1 lecture, 2 laboratory) (4/75).

FAA equivalent: FC-199 RVR FA-7861.

SMMC for Engineers (43421)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 80 hours (2 weeks).

Dates: October 1972 – September 1977.

Objective: To train systems engineers responsible for the evaluation of the National Airspace System operation from the System Maintenance Monitor Console.

Instruction: Evaluation of each module of the System Maintenance Monitor Console and of the system operation as related to each module. En route air traffic control center environmental alarms analysis and radar information as displayed on the Random Access Planned Position Indicator (RAPPI). (Recommended prerequisites: IBM 9020 CCC for Engineers 43463, NAS En Route I/O Equipment for Engineers 43412, and NAS En Route Operational Program for Engineers 43420.)

Credit recommendation: In the upper division baccalaureate category, 1 semester hour in Computer Technology (7/75).

1. Solid State Devices (44712)
2. Solid State Devices (44509)

Location: (Correspondence).

Length: 1. Prerequisite Validation Examination (PVE 500).
2. Directed study (approximately 160 hours).

Dates: July 1972 – Present.

Objective: To provide the technician with basic knowledge of solid state devices necessary for successful completion of specific equipment courses.

Instruction: Basic operation and characteristics of semiconductor diodes, bipolar and field effect transitors, triacs, and thyristors; a qualitative analysis of amplifier circuits; differential amplifiers; switching circuits; multivibrators. (Prerequisite for Course 2: Foundation Mathematics 44502.)

Credit recommendation: Course 1 or 2: In the lower division baccalaureate/associate degree category, 3 semester hours in Solid State Devices (4/75).

FAA equivalent: Course 2: 40504 Solid State Devices **or** FV-500 or 40503 Transistor Electronics **or** DFG-41 or 44507 Semi-Conductor/Transistor Circuit.

Solid State Fundamentals for Electromechanics (40115 or 44107)

Refer to Environmental Support System Concepts (40117).

System Maintenance Monitor Console (43432)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 160 hours (4 weeks).

Dates: April 1973 – Present.

Objective: To train technicians responsible for the installation, maintenance, and repair of the System Maintenance Monitor Console.

Instruction: Detailed logic diagrams of the System Maintenance Monitor Console. Laboratory sessions include maintenance problems and procedures. (Prerequisites: Digital Logic Principles 40402 and Solid State Devices 44509.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Computer Technology (1 lecture, 2 laboratory) (6/75).

Test Equipment Console Test Cart (43419)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 240 hours (6 weeks).

Dates: August 1971 – Present.

Objective: To provide the technician with basic background needed to operate and maintain the test equipment console test cart.

Instruction: Machine language computer programming and architecture; diagnostic programming and circuitry; magnetic tape transport and controller; logic multiplexer; buffer memories; peripheral controllers. (Prerequisite: Principles of Digital Logic and Data Processing 44411.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 6 semester hours in Computer Technology (3 lecture, 3 laboratory) (6/75).

VHF Omnirange Equipment (VOR) (40205)

Location: FAA Academy, FAA Aeronautical Center, Oklahoma City, OK.

Length: 120 hours (3 weeks).

Dates: January 1967 – Present.

Objective: To train technicians responsible for the installation, maintenance, and evaluation of VOR equipment.

Instruction: Detailed analysis of a VOR system, system components, and monitor; phase modulation; navigation geometry; transmitter and receiver principles; antenna radiation patterns. Laboratory instruction includes practice in comprehensive system operation, adjustment, and calibration. (Prerequisite: Advanced ILS/VOR Principles 40204.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Communications Electronics (2 lecture, 2 laboratory) (4/75).

FAA equivalent: FV-200 VHF Omnirange.

GENERAL ELECTRIC COMPANY

The General Electric Company (GE) is primarily engaged in developing, manufacturing, and marketing a wide variety of products used in the generation, transmission, distribution, control, and utilization of electricity. As a result of corporate research and development, GE has also developed businesses in such areas as communications, plastics, medical systems, aircraft engines, and ship propulsion systems. In 1974, domestic employment was approximately 307,000 persons in 47 GE divisions throughout the country.

GE offers many courses to its employees to help accelerate their professional and managerial career development. Whether the courses are single offerings, or are part of an integrated program of study, they are all designed to help individual employees perform more effectively on current jobs, prepare for new jobs, or gain greater personal satisfaction from their work.

Courses are grouped alphabetically under the title of the program of which they are a part. A brief description of each program precedes the group of courses to explain the purpose and general content of the program.

ADVANCED COURSE IN ENGINEERING

The Advanced Course in Engineering was originally established in 1923 to supply the General Electric Company with engineers having sufficient breadth and depth of technical understanding to make basic contributions in the development of new or improved products. The overall objectives of the course are to increase the abilities of the recent technical college graduate to:

- Analyze and evaluate engineering problems as to both their significance and the appropriate economic and technical approach to their solution,
- Apply effectively the advanced principles of physics, mathematics, and engineering technology to the solution of actual engineering problems,
- Present the solutions clearly and concisely in terms of conclusions and recommended action.

The Advanced Course is a 3-1/2-year program consisting of the company-taught A-, B-, and C-Courses and periods of formal academic study on campus. The course material is continuously reviewed, revised, and updated. It includes pertinent basics, state-of-the-art analytical techniques, and topical emphasis relative to changing business needs and products. Graduates of the program may earn the company's Advanced Course certificate.

The A-Course is taught with basic uniformity at the eight General Electric locations at which it is conducted, and the credit recommendation for that course applies to all those locations. The B- and C-Courses treat subject areas that have special applications to each plant, and the credit recommendations established for those two courses apply only to the locations indicated.

Source of official student records: Manager, Advanced Course in Engineering, Professional Education Operation, Building 36, Room 515, Schenectady, New York 12345.

A-Course

Location: Aerospace Controls & Electronics Systems Department, Binghamton, NY; Aerospace Electronic Systems Products Department, Utica, NY; Aircraft Engine Group, Evendale, OH; Aircraft Engine Group, Lynn, MA; Armament Systems Products Department, Burlington, VT; Heavy Military Equipment Department, Syracuse, NY; Nuclear Energy Products Division, San Jose, CA; Professional Education Operation, Schenectady, NY; Reentry and Environmental Systems Division, Valley Forge, PA.

Length: 136 hours (34 weeks); approximately 680 hours are devoted to problem solving outside of class.

Dates: January 1965 – Present.

Objective: To develop the ability to solve engineering development and design problems.

Instruction: Engineering analysis (application of mathematical techniques to many technical areas).. Vibrational analysis; E&M fields; control theory; probability and random variables; heat transfer; structure analysis. Assigned problems support the classwork, are completed outside of class, and are submitted to the instructor for review.

Credit recommendation: In the graduate degree category, 12 semester hours in Engineering Analysis or Engineering Science (or 4 semester hours in Applied Mathematics) (6/75). NOTE: The course is broadly interdisciplinary in nature and may not be sufficiently specialized for full credit in highly specialized degree programs.

B-Course

Location: Aerospace Controls and Electronics Systems Department, Binghamton, NY (1/70 – 12/74 only); Aerospace Electronics Systems Products Department, Utica, NY; Heavy Military Equipment Department, Syracuse, NY.

Length: Version 1: 64 hours (16 weeks); approximately 320 hours are devoted to problem solving outside of class.

Version 2: 12 hours (28 weeks); approximately 480 hours are devoted to problem solving outside of class.

Dates: Version 1: January 1970 – December 1975.

Version 2: January 1976 – Present.

Objective: To teach classical communications theory with emphasis on selected current engineering problems.

Instruction: Versions 1 and 2: Amplitude, frequency, and digital modulation schemes; information theory; hypothesis testing; parametric estimation; Kalman filtering; radar design. Assigned problems support the classwork, are completed outside of class, and are submitted to the instructor for review. **Version 2:** Also includes: probability theory and stochastic processes; Hilbert transforms and complex envelope; extended information theory concepts; electro-optics; statistical detection theory; sonar techniques; electronic countermeasures.

Credit recommendation: Version 1: In the graduate degree category, 6 semester hours in Communications Theory and Systems (6/75). **Version 2:** In the graduate degree category, 12 semester hours in Communications Theory and Systems (8/76).

C-Course

Location: Aerospace Controls & Electronics Systems Department, Binghamton, NY (1/70 – 12/74 only); Aerospace Electronic Systems Products Department, Utica, NY; Heavy Military Equipment Department, Syracuse, NY.

Length: 128 hours (32 weeks); approximately 480 hours are devoted to problem solving outside of class.

Dates: January 1970 – Present.

Objective: To teach classical control theory, digital controls, optimal control, and computer applications and systems.

Instruction: Classical controls; optimal control; digital signal processing; linear programming; dynamic programming; numerical methods; calculus of variations; integral equations; Markov processes; queuing theory; digital design; microprocessors; computer systems. Assigned problems support the classwork, are completed outside of class, and are submitted to the instructor for review.

Credit recommendation: In the graduate degree category, 12 semester hours in Electrical Engineering (or 10 semester hours in Computer Science) (6/75).

ADVANCED MANUFACTURING STUDIES PROGRAM

The courses listed below are part of the Advanced Manufacturing Studies Program. The courses are offered to General Electric employees wishing to add to or reinforce their knowledge of the field of manufacturing. They cover such topics as mathematics, manufacturing management, and computers.

While credit recommendations have been made for each unit separately, particular consideration for granting credit should be given to those who have completed the total program.

Please note that the credit recommendations apply to *all* locations where the program is conducted.

Source of official student records: Advanced Manufacturing Studies representative in the plant where the courses were completed.

Advanced Methods and Models (AMS 152)

Refer to Mathematical Methods and Models.

Basic Mathematics (AMS 151)

Refer to Mathematical Methods and Models.

Cases in Manufacturing Management (AMS 303)

Location: General Electric plants: Greenville, SC; Hudson Falls, NY; Schenectady, NY; Wilmington, NC.

Length: 20 hours (10 weeks).

Dates: January 1965 – Present.

Objective: To introduce the student to the various problems resulting from the interaction of manufacturing management with the other functional areas of the firm.

Instruction: A case study approach is used to deal with manufacturing and business management problems. Discussion of each case to identify the real problem or problems and the important considerations involved. Each case is an actual situation in which a manufacturing problem is interrelated with one or more of the other key business functions (marketing, engineering, finance, relations). Involves application of concepts covered in Basic Manufacturing Studies courses.

Credit recommendation: In the upper division baccalaureate category, 1 semester hour in Manufacturing Management (2/75).

Mathematical Methods and Models

1. **Advanced Methods and Models (AMS 152).**
2. **Basic Mathematics (AMS 151).**

Location: General Electric plants: Bethesda, MD; Hendersonville, NC; Schenectady, NY; Syracuse, NY; Wilmington, NC; Worthington, OH.

Length: 1. 18 hours (9 weeks).
2. 16 hours (8 weeks).

Dates: January 1965 – Present.

Objective: To provide the student with basic mathematical background and skills needed in creating mathematical models and in simulating systems.

Introduction: Introduction to descriptive statistics; review of high school algebra; introduction to calculus and partial derivatives; elements of matrices; language of set theory; compound interest; simulation; linear programming; multiple regression.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Business Administration or Economics (2/75).

Probabilistic Models (AMS 154)

Location: General Electric plants: Bethesda, MD; Hendersonville, NC; Schenectady, NY; Wilmington, NC; Worthington, OH.

Length: 16 hours (8 weeks).

Dates: January 1965 – Present.

Objective: To introduce the student to statistical and probabilistic ideas through Markov and stochastic processes with application to queuing theory.

Instruction: Basic ideas of probability; binomial and geometric distribution; Markov processes, uniform and normal distribution; Monte Carlo Method, queuing theory, decision models and metamathematics; statistics (means, variances, and correlation coefficients).

Credit recommendation: In the upper division baccalaureate category, 1 semester hour in Business Administration or Economics (2/75).

Regression Analysis (AMS 320)

Location: General Electric plants: Bethesda, MD; Schenectady, NY; Wilmington, NC.

Length: 24 hours (12 weeks).

Dates: January 1969 – Present.

Objective: To provide the student with applied knowledge of basic regression models.

Instruction: Simple linear regression model; multiple regression models; least squares method of estimating the parameters of the models; interpretation of computer output.

Credit recommendation: In the upper division baccalaureate category, 1 semester hour in Business Administration or Economics (2/75).

GESIMTEL (Simulation with Teleprocessing) (AMS 311)

Location: General Electric plants: Lynn, MA; Philadelphia, PA; Rockville, MD; Schenectady, NY.

Length: 24 hours (8 weeks).

Dates: January 1973 – Present.

Objective: To provide the student with a background in general purpose system simulation and its application methods.

Instruction: A study of computer simulation techniques. The GESIMTEL system; modeling methods; control language; I/O format; debugging; applications to algebraic and probabilistic problems.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Business Administration or Computer Science (2/75).

Statistical Inference (AMS 153)

Location: General Electric plants: Bethesda, MD; Hendersonville, NC; Schenectady, NY; Wilmington, NC; Worthington, OH.

Length: 16 hours (8 weeks).

Dates: January 1965 – Present.

Objective: To provide the student with a background in statistical inference for computer applications.

Instruction: Background in statistical inference involving numerical data. Statistical populations; principles of sampling; statistical estimation; quantitative conclusions; statistical decisions.

Credit recommendation: In the upper division baccalaureate category, 1 semester hour in Business Administration or Mathematics (2/75).

MANAGEMENT PROBLEMS ANALYSIS PROGRAM

The courses listed below constitute the Management Problems Analysis (MPA) Program. It is an 11-month program designed to teach modern quantitative techniques and to effectively apply those methods to the analysis of business problems and to the subsequent decision-making process.

Each student completes all eight modules which make up the program during the course of the 11 months. Each program participant is required to attend classroom instruction, and to write seven reports which describe his or her application of newly learned techniques to specific on-the-job problems. At the end of the program, the student is required to submit a major project, which involves usually another 60 hours of independent study.

Since its inception in 1962, MPA has been offered at 21 GE locations, and since 1973 has been offered at the following nine: Chicago, Illinois; Evendale, Ohio; Fort Wayne, Indiana; Lynn, Massachusetts; Milwaukee, Wisconsin; Philadelphia, Pennsylvania; Pittsfield, Massachusetts; Schenectady, New York; and Valley Forge, Pennsylvania. The credit recommendations listed below apply to all locations where the program has been offered since 1973.

Source of official student records: Manager, Quantitative Management Methods, Corporate Education Services, Building 5-455, Schenectady, New York 12345.

Economic Analysis of Alternatives

Length: 24 hours.

Dates: January 1973 – Present.

Objective: To provide the student with an appreciation of the time value of money and its effect on the decision-making process.

Instruction: The effect of time on the economic analysis of alternatives. Concepts of compound interest; present value analysis and internal rate of return; the effect of taxes and depreciation on cash flows.

Credit recommendation: In the graduate degree category, 1 semester hour in Business Administration or Engineering Management (2/75).

GESIMTEL (Simulation with Teleprocessing)

Length: 24 hours.

Dates: January 1973 – Present.

Objective: To provide the student with practical background in using General Purpose System Simulator (GPSS) and its application in graphical data analysis and statistical inference.

Instruction: Background in GESIMTEL and its applications. The GESIMTEL system; modeling techniques; computer I/O formats; histograms; probability plots; crossplots; applications to manufacturing information systems (marketing, engineering, and finance).

Credit recommendation: In the graduate degree category, 2 semester hours in Business Administration or Engineering Management (2/75).

Introduction to Probability Theory and Descriptive Statistics

Length: 18 hours.

Dates: January 1973 – Present.

Objective: To provide the student with basic probabilistic concepts and skills in combinatorial computations and an understanding and skill in using frequency distributions.

Instruction: Basic probability theory (sets, sample space, events, symbolic probabilities, probability computations, probability trees, combinatorial computation); frequency distribution; grouping of individual data; histograms and frequency polygons; calculation of mean, variance, and standard deviation; uniform and normal distribution.

Credit recommendation: In the graduate degree category, 1 semester hour in Business Administration, Economics, or Engineering Management (2/75).

Modeling

Length: 36 hours.

Dates: January 1973 – Present.

Objective: To provide the student with a first simulation experience and to equip the student with some basic discrete and continuous probability distributions.

Instruction: Introduction to modeling and use of random numbers; Bernoulli processes; Poisson processes; Bayesian inference. In particular, the binomial, geometric, Pascal, Poisson, exponential, and gamma distributions. Applications to queuing theory, inventory, and man/machine mixture problems.

Credit recommendation: In the graduate degree category, 2 semester hours in Business Administration, Economics, or Engineering Management (2/75).

Operations Research and Applications Training

Length: 45 hours.

Dates: January 1973 – Present.

Objective: To familiarize the student with quantitative models useful for decision making and the steps involved in incorporating these into a business strategy.

Instruction: A series of mathematical models and techniques found useful in decision making. Linear programming models; PERT/CPM; forecasting techniques; the learning curve; reliability concepts. Discussion involving the development of skills in planning decision-making strategies and presenting conclusions and recommendations is included.

Credit recommendation: In the graduate degree category, 3 semester hours in Business Administration or Engineering Management (2/75).

Regression Analysis

Length: 39 hours.

Dates: January 1973 – Present.

Objective: To provide the student with applied knowledge of linear statistical models.

Instruction: Applied linear statistical models dealing with simple and multiple regression models and analysis of variance models. Least squares method; simple and multiple Rho-square polynomial regression models; step-wise procedures; multicolinearity; computer application; ANOVA with one- and two-variable models; cross and nested models; various designs of experiment. No calculus background is assumed.

Credit recommendation: In the graduate degree category, 3 semester hours in Business Administration, Economics, or Industrial Engineering (2/75).

Statistical Inference

Length: 30 hours.

Dates: January 1973 – Present.

Objective: To provide the student with applied knowledge of various statistical inference methods.

Instruction: Statistical inference methods dealing with estimation of mean, difference between two means, variance, ratio of variances (hypothesis testing and confidence interval methods); Goodness of Fit test; graphical data analysis.

Credit recommendation: In the graduate degree category, 2 semester hours in Business Administration, Economics, or Engineering Management (2/75).

Time-Sharing System and Applications

Length: 18 hours.

Dates: January 1973 – Present.

Objective: To provide the student with background in BASIC programming techniques and their applications to management problem analysis programs.

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Instruction: Background in time-sharing systems and applications. Flowcharting; BASIC language coding; editing; debugging; file organization subroutine; GE Mark III time-sharing system principles and operations; statistical analysis program packages. Hands-on applications, problem solving, and project design are emphasized.

Credit recommendation: In the graduate degree category, 1 semester hour in Business Administration, Computer Science, or Engineering Management (2/75).

MANUFACTURING STUDIES PROGRAM

The courses listed below are part of a two-year integrated curriculum called the Manufacturing Studies Program. Each course meets for two hours per week after working hours. Two courses are taken concurrently from September to June. The program is conducted at approximately 60 GE plants throughout the United States, including the following locations in New York State: Auburn, Hudson Falls, Schenectady, Syracuse, and Utica. The administrative headquarters for the program is located at the Schenectady plant.

The general objective of the program is to provide an opportunity for individuals capable of college-level work to further develop knowledge and technical abilities applicable in such fields as manufacturing supervision, materials management, manufacturing engineering, quality control, information systems, and employee relations. The program is designed for engineers, specialists, supervisors, and managers.

Because of the modular structure of the curriculum, the courses have been grouped together in order to establish appropriate credit recommendations. While credit recommendations have been made for each separate group of courses, when awarding credit particular consideration should be given to those who have completed the total program.

Please note that the credit recommendations listed below apply to all GE locations where the program is offered.

Source of official student records: Manufacturing Studies representative in the plant where the courses were completed.

Computer Programming and Data Analysis (Unit I)

1. **Data Analysis and Probability Evaluation (MFG 220).**
2. **Introduction to Computers (MFG 111 or 111B).**
3. **Manufacturing Information Systems (MFG 211).**

Location: General Electric plants: Auburn, Hudson Falls, Schenectady, Syracuse, and Utica, NY; locations throughout the United States.

Length: 1. 24 hours (12 weeks).
2. 20 hours (10 weeks).
3. 20 hours (10 weeks).

Dates: September 1965 – Present.

Objective: To provide an introduction to basic concepts in computer programming and statistical analysis.

Instruction: Characteristics and limitations of computers; use of FORTRAN and BASIC programming language in solving problems; introductory statistical concepts (measures of central tendency and variability, statistical inference, discrete sampling distributions, and correlations analysis).

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Computer Programming and Data Analysis (2/74).

Data Analysis and Probability Evaluation (MFG 220)

Refer to Computer Programming and Data Analysis (Unit I).

Economic Analysis of Alternatives (MFG 130)

Refer to Managerial Accounting and Cost Analysis (Unit III).

Employee Relations in Manufacturing (MFG 105)

Refer to Personnel Administration (Unit V).

Individual and Group Relations on the Job (MFG 102)

Refer to Personnel Administration (Unit V).

Industrial Engineering (Unit II)

1. **Manufacturing Materials and Processes (MFG 108)**
2. **Product Engineering (MFG 250)**

Location: General Electric plants: Auburn, Hudson Falls, Schenectady, Syracuse, and Utica, NY; locations throughout the United States.

Length: 1. 24 hours (12 weeks).
2. 10 hours (5 weeks).

Dates: September 1965 – Present.

Objective: To provide the student with knowledge of manufacturing processes and the product engineering function.

Instruction: Study of manufacturing processes and the product engineering function. Introduction to productivity and total design; casting processes; basic machinery and metal forming processes; metal joining processes; use of excellent problems treating these topics. Brief treatment of the type of work involved in designing a product and the impact of the design phase on the manufacturing function, engineering data base, and product documentation.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Industrial Engineering (2/74).

Introduction to Accounting Principles (MFG 25)

Refer to Managerial Accounting and Cost Analysis (Unit III).

Introduction to Computers (MFG 111 or 111B)

Refer to Computer Programming and Data Analysis (Unit I).

Managerial Accounting and Cost Analysis (Unit III)

1. **Economic Analysis of Alternatives (MFG 130).**
2. **Introduction to Accounting Principles (MFG 25).**
3. **Operating Costs, Budgets, and Measurements (MFG 125).**

Location: General Electric plants: Auburn, Hudson Falls, Schenectady, Syracuse, and Utica, NY; locations throughout the United States.

Length: 1. 24 hours (12 weeks).
2. 6 hours (3 weeks).
3. 20 hours (10 weeks).

Dates: September 1965 – Present.

Objective: To provide an introduction to basic accounting concepts and principles.

Instruction: Basic introduction to accounting concepts and principles with strong emphasis on managerial use of accounting information. Introduction to accounting statements and principles; brief treatment of statement preparation, T-accounts, ledger and journal entries; introduction to cost concepts and analysis, incremental and sunk costs, and budgeting; capital budgeting (discounted case flows, tax considerations, and alternative equipment replacement policies).

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Managerial Accounting and Cost Analysis (2/74).

Manufacturing Engineering (MFG 204)

Refer to Manufacturing Management (Unit IV).

Manufacturing Information Systems (MFG 211)

Refer to Computer Programming and Data Analysis (Unit I).

Manufacturing Management (Unit IV)

1. **Manufacturing Engineering (MFG 204).**
2. **Materials Management (MFG 215).**
3. **Quality Control (MFG 217).**

Location: General Electric plants: Auburn, Hudson Falls, Schenectady, Syracuse, and Utica, NY; locations throughout the United States.

Length: 1. 24 hours (12 weeks).
2. 24 hours (12 weeks).
3. 24 hours (12 weeks).

Dates: September 1965 – Present.

Objective: To provide an introduction to manufacturing management.

Instruction: Introduction to management problems in designing and controlling production systems; methods for designing a production process (preparation of plant layouts, job designs, production standards, and assembly line balances); study of the problems of planning and controlling production (forecasting demand, inventory control, production scheduling, and purchasing and traffic management); procedures for organizing the quality control function in manufacturing and the statistical control of product quality variables.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Manufacturing Management (2/74).

Manufacturing Materials and Processes (MFG 108)

Refer to Industrial Engineering (Unit II).

Manufacturing Organization and Supervision (MFG 101)

Refer to Personnel Administration (Unit V).

Materials Management (MFG 215)

Refer to Manufacturing Management (Unit IV).

Operating Costs, Budgets, and Measurements (MFG 125)

Refer to Managerial Accounting and Cost Analysis (Unit III).

Personnel Administration (Unit V)

1. **Employee Relations in Manufacturing (MFG 105).**
2. **Individual and Group Relations on the Job (MFG 102).**
3. **Manufacturing Organization and Supervision (MFG 101).**

Location: General Electric plants: Auburn, Hudson Falls, Schenectady, Syracuse, and Utica, NY; locations throughout the United States.

Length: 1. 16 hours (8 weeks).
2. 24 hours (12 weeks).
3. 16 hours (8 weeks).

Dates: September 1965 – Present.

Objective: To provide knowledge of the organization and management of a firm.

Instruction: General approach to the organization and management of a firm; special emphasis on the engineering-type organization and the interpersonal relationships which exist and operate in such an institution; specific aspects of the personnel function; general areas of motivation, organization behavior, and manpower planning.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Personnel Administration (2/74).

Product Engineering (MFG 250)

Refer to Industrial Engineering (Unit II).

Quality Control (MFG 217)

Refer to Manufacturing Management (Unit IV).

GRUMMAN AEROSPACE CORPORATION

The Grumman Aerospace Corporation, located in Bethpage, Long Island, New York, is a wholly owned subsidiary of the Grumman Corporation. Grumman Aerospace designs, integrates, and produces major systems for both the military and space markets.

The Career Education and Development Center conducts a broad range of skills training, systems training, and professional and management development courses for Grumman employees on Long Island and at other Grumman responsibility centers. Part of this effort is the Grumman Voluntary After-Hours Program which offers a comprehensive selection of job-related training courses.

Please note that the credit recommendations apply to *all* locations where the courses are offered.

Source of official student records: Director, Grumman Aerospace Corporation Career Education and Development, Bethpage, New York 11714.

Business and Technical Writing (FF 01545)

(Formerly Writing and Communications [FF 01173])

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 36 hours (16 weeks).

Dates: September 1974 – Present.

Objective: To provide the student with the basic philosophy and related mechanics of logical organization, effective writing, and efficient reading.

Instruction: Basic principles of communication; logical organization; effective writing; efficient reading; prescriptive writing; report writing; persuasive writing; material selection and punctuation. Course format includes lecture, discussion, and writing exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Business or Engineering (8/76).

Communication and Motivation (EE 01239)

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 36 hours (13 weeks).

Dates: January 1970 – Present.

Objective: To provide the student with behavioral science approaches in the areas of motivation and communication.

Instruction: Behavioral science research and its implications for the management process; the impact of assumptions; achievement motivation; interpersonal communication skill; management styles, both individual and corporate; job enrichment; the process of effective listening.

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Behavioral Sciences (7/75).

Computer Programming, COBOL (FF 00001)

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 37-1/2 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To teach the student how to design, code, and debug COBOL programs, and methods of solving data processing problems using COBOL.

Instruction: Review of data processing concepts. Computer programming with COBOL, with emphasis on the divisional makeup of the COBOL language; identification; environment; data; procedure.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Data Processing (2/76).

Computer Programming (FORTRAN) (FF 00002)

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 36 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To provide the student with knowledge needed to express computational problems in the FORTRAN language.

Instruction: Introduction to the digital computer and its basic programming concepts utilizing FORTRAN IV, Logic, and flowcharting; computer applications, limitations, and the functions of its major components. Use of structured problem solving.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Computer Programming (2/76).

Computers: A Managerial Tool (FF 01021) (Management Information System)

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 36 hours.

Dates: September 1975 – Present.

Objective: To provide the student with an understanding of information processing and computers as they relate to management, operational effectiveness, planning, and organizational change.

Instruction: General concepts and characteristics of the hardware and software components of information processing systems; processes and methodologies related to application development, system procurement, and management. Specific topics include: industry personnel and organization; hardware architecture; input/output devices; resource management; security; computer-aided design; financial modeling; current state-of-the-art and industry trends.

Credit recommendation: In the graduate degree category, 3 semester hours in Management (2/76).

Effective Oral Presentations (FF 01550)

(Formerly Effective Technical Presentations [FF 00019])

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 36 hours (18 weeks).

Dates: September 1974 – Present.

Objective: To develop the participant's skill in communicating with and motivating an audience.

Instruction: Intellectual, physical, and emotional aspects of oral communication; organization for clarity, impact, and repeatability; motivating and persuading an audience for action; the use of audiovisual aids. To develop the ability to compose and deliver presentations with poise, self-confidence, and effectiveness, students make oral presentations which are evaluated by the class and the instructor.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Public Speaking (8/76).

Fundamentals of Supervisory Management (EE 00099)

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 40 hours (16 weeks).

Dates: March 1967 – Present.

Objective: To provide the student with a basic introduction to the management process and to develop understanding of the nature of leadership.

Instruction: Introduction to the nature of management; the process of planning, organizing, and controlling; fundamentals of personality and behavior; motivation and communications; handling complaints and grievances; guiding employees and building job satisfaction and morale.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Management (7/75).

Introduction to Computer Programming (FF 00003)

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 37-1/2 hours (15 weeks).

Dates: September 1967 – Present.

Objective: To provide students with knowledge of basic computer concepts and programming techniques prior to language courses.

Instruction: Basic concepts of processing data including: data representation and recording; computer equipment; how the computer is instructed to perform its task; how this tool can assist in problem solving and providing information. Various elements of computer program development: proper problem definition and planning to meet specific objectives; flow charting used to represent the analysis and logical operations necessary to solve the problem; graphic solution then translated into coded instructions in a pseudoprogramming language. Other topics include: record layout design; data organization; systems and program documentation; and operating systems concepts. Exercises and case studies are used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business Data Processing (2/76).

Management I (EE 01351)

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 48 hours (12 weeks).

Dates: March 1975 – Present.

Objective: To improve the effectiveness of practicing first-line supervisors through increased knowledge of management practices and the behavioral sciences and their application on the job.

Instruction: Introduction to supervisory management practices; role of the supervisor, including motivation and performance appraisal; personnel and labor relations; the communication process; the manufacturing system, including quality and material control; budgeting. The works of Maslow, McGregor, and Herzberg are studied, and on-the-job applications are planned. Lecture, discussion, case studies, role-play exercises, and small group projects are used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Management (7/75).

Management II (EE 01376)

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 42 hours (10-1/2 weeks).

Dates: April 1975 – Present.

Objective: To increase the middle manager's knowledge in the areas of the behavioral sciences, business issues, and functional management in order to improve managerial performance.

Instruction: The manager's job; management of time; personnel and labor relations; planning and goal setting; theories of human effectiveness; management of manpower and material. Case studies and group exercises are used to develop a model of effective managerial performance.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Management (7/75).

Senior Management Development Program (EE 01252)

Location: Bethpage, NY, and other company locations throughout the United States.

Length: 100 hours (12-1/2 weeks).

Dates: April 1975 – Present.

Objective: To increase the knowledge and competence of senior-level managers in human resource development and utilization, business policy, and the management process.

Instruction: The behavioral sciences and their effect on the management process; human resource utilization; business and social issues as they impact on industry and business policy; functional management; management information systems; manufacturing management. Emphasis is on the use of detailed case study analyses.

Credit recommendation: In the graduate degree category, 3 semester hours in Behavioral Science and 3 semester hours in Management Process (7/75).

HOTEL ASSOCIATION OF NEW YORK CITY, INC. NEW YORK HOTEL AND MOTEL TRADES COUNCIL, AFL-CIO

The Hotel Association of New York and the New York Hotel and Motel Trades Council, AFL-CIO, established the Industry Training Program in 1969 under the terms of the citywide contract for hotel and motel employees. The program is financed by employer contributions. The aim of the program is to improve the skills and competencies of the industry employees and to increase their opportunities for promotion.

The program offers courses in Basic Education and English as a Second Language as a foundation for more specialized courses in hotel technology and food services administration, which reflect the departmental functions of modern hotels. All courses are offered on a schedule that is flexible enough to accommodate hotel employees regardless of the shifts they work.

Source of official student records: Administrator, Industry Training Program, 707 Eighth Avenue, New York, New York 10036.

The Art of Cooking I (ITP C.I)

Location: 707 Eighth Avenue, New York, NY.

Length: 504 hours (36 weeks).

Dates: September 1974—Present.

Objective: To provide the student with a knowledge and application of the basic principles of food preparation in quantity.

Instruction: Basic cooking skills, such as: the preparation and cooking of all vegetables; knife drill and vegetable cut; basic stocks; basic sauces and smaller derived sauces; various thickening agents; the art of sautéing, roasting, broiling, poaching, and deep frying; popular desserts.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Commercial Cooking (12/76).

The Art of Cooking II (ITP C.II)

Location: 707 Eighth Avenue, New York, NY.

Length: 504 hours (36 weeks).

Dates: September 1975—Present.

Objective: To provide the student with the knowledge of and skills in preparing professional quality foods in quantity.

Instruction: Designing, setting up, and decorating meat and fish platters in chaud froid and aspic for presentation and service; advanced instruction in more classical entrees; basic baking techniques; techniques and uses of pastillage, royal icing, almond paste, and ice carving.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Commercial Cooking (12/76).

Basic Accounting (ITP 300A)

Location: 707 Eighth Avenue, New York, NY.

Length: 30 hours (15 weeks).

Dates: September 1971—Present.

Objective: To provide the student with a basic knowledge of accounting principles and procedures.

Instruction: Theory of debits and credits; recording business transactions in debit and credit form; function and use of T accounts; posting to T accounts; preparation for balance sheets; profit and loss; bank reconciliation (long and short form); computation of interest and discount. (Prerequisites: Front Office Introduction ITP 100 and Front Office Operations ITP 200.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Accounting (12/76).

English as a Second Language

1. ESL 101, 102 & 103
2. ESL 204, 205 & 206
3. ESL 307, 308 & 309
4. ESL 410, 411 & 412
5. ESL 513, 514 & 515
6. ESL 616, 617 & 618

Location: 707 Eighth Avenue, New York, NY.

Length: Each course, 108 hours (36 weeks); consists of three 12-week trimesters beginning in September and ending in June.

Dates: 1. June 1971—Present.
2. September 1972—Present.
3. September 1973—Present.
4-6. September 1974—Present.

Objective: To provide instruction in English at six levels, ranging from fundamental skills in listening, speaking, reading, and writing to advanced instruction in these areas.

Instruction: The program is based on a progression from simple to more complex grammatical structure which is integrated with the teaching of listening, speaking, and reading skills, the development of functional vocabulary, and the teaching of composition. Students are placed in the level of instruction appropriate to their knowledge of English as demonstrated by performance on placement and achievement tests.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in English as a Second Language for each 200 hours of instruction that are successfully completed, up to a maximum of 3 semester hours for completion of all six levels (12/76).

1. Front Office Introduction (ITP 100)

(Formerly Front Office I)

2. Front Office Operations (ITP 200)

(Formerly Advanced Front Office)

Location: 707 Eighth Avenue, New York, NY.

Length: 1. 30 hours (15 weeks).
2. 30 hours (15 weeks).

Dates: 1. September 1971—Present.
2. September 1974—Present.

Objective: To provide the student with a basic understanding of front office operations in a hotel.

Instruction: Study of the responsibilities and duties of all front office personnel including day room clerk, night desk, reservations clerk, mail and information personnel, front office manager, and assistant manager.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Hotel Technology (12/76). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Front Office Operations (ITP 200)

Refer to Front Office Introduction (ITP 100).

1. Machine Operations (ITP 200A)

(Formerly N.C.R. Operation)

2. Night Auditing (ITP 300)

(Formerly N.C.R.—Night Auditing)

Location: 707 Eighth Avenue, New York, NY.

Length: 1. 30 hours (15 weeks).
2. 30 hours (15 weeks).

Dates: September 1971—Present.

Objective: To provide the student with the skills necessary to master front office posting machines and to conduct a night audit in a hotel.

Instruction: Posting of charges and credits, corrections, cash keys of paid and paid out with the utilization of the various front office cashier forms. Field experience includes working the night auditor's evening shift with training on such posting machines as the N.C.R. 2000 and N.C.R. 4200. Lecture, discussion and field experiences. (Prerequisites: Front Office Introduction ITP 100 and Front Office Operations ITP 200.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Hotel Technology (12/76). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Night Auditing (ITP 300)

Refer to Machine Operations (ITP 200A).

Payroll and Payroll Taxes (ITP 300B)

Location: 707 Eighth Avenue, New York, NY.

Length: 30 hours (15 weeks).

Dates: September 1974—Present.

Objective: To provide the student with a basic understanding of the procedures for payroll construction and reporting methods.

Instruction: Preparation of payrolls; posting to earning cards; preparing payroll and tax reconciliation reports in order to file quarterly and yearly payroll tax returns to Federal, State, and city agencies. (Prerequisites: Front Office Introduction ITP 100, Front Office Operations ITP 200, and Basic Accounting ITP 300A, or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Accounting (12/76).

Repair and Maintenance I (ITP 105)

Location: 707 Eighth Avenue, New York, NY.

Length: 30 hours (15 weeks); 200 hours of independent study.

Dates: September 1972 – Present.

Objective: To provide the student with a knowledge of the functions and responsibilities of a hotel's repairs and maintenance department under the direction of a licensed supervisor.

Instruction: Analysis of the mechanical core functions of the total hotel property. Heat; light; power; communications; kitchen and laundry equipment.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Maintenance and Engineering for Lodging and Food Service (12/76).

Stewarding (ITP 104)

Location: 707 Eighth Avenue, New York, NY.

Length: 30 hours (15 weeks).

Dates: January 1975 – Present.

Objective: To provide the student with an understanding and application of the principles and techniques of stewarding.

Instruction: Purchasing specifications; receiving; storage procedures; sanitation; record keeping; working relationships with food and beverage department, executive chef, and/or food and beverage director.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Hotel Technology (12/76).

1. Typing I (ITP 103)
2. Typing II (ITP 203)

Location: 707 Eighth Avenue, New York, NY.

Length: 1. 60 hours (15 weeks).
2. 84 hours (21 weeks).

Dates: February 1971 – Present.

Objective: To introduce the student to typewriting theory and techniques and to develop his/her typing speed to 30 w.p.m. (with a five error cut-off on a five-minute timing).

Instruction: Course 1: Mechanical functions of the typewriter; mastery of the keyboard; setting margins; centering typed material; short business letters; handling correspondence. **Course 2:** Tabulations; one-page reports; punctuation; envelopes; post cards; invoices; average length business letters; term papers. Timed copy tests are used throughout both courses to measure accuracy and speed.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Secretarial Science (5/77). NOTE: Both courses must be completed in order to receive credit.

1. Typing III (ITP 303)
2. Typing IV (ITP 403)

Location: 707 Eighth Avenue, New York, NY.

Length: 1. 60 hours (15 weeks).
2. 84 hours (21 weeks).

Dates: February 1971 – Present.

Objective: To increase the student's typing speed to a minimum of 45-50 w.p.m. (with a five error cut-off on a five-minute timing).

Instruction: Course 1: Refresher skill drills, tabulation, and report problems; review of business letters and business forms; rough draft tables; statements of accounts. **Course 2:** Control reinforcement drills; manuscripts; business reports; special letter styles; tables of contents; balance sheets; financial statements. Both courses include speed development drills.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Secretarial Science (5/77). NOTE: Both courses must be completed in order to receive credit.

INTERNATIONAL CLAIM ASSOCIATION

The International Claim Association (ICA) is an association of health, accident, and life insurance companies operating primarily in the United States and Canada. The purposes of ICA include promoting high standards of performance in claims administration and providing a forum for research, education, and the exchange of ideas relating to various aspects of claims administration.

ICA CLAIMS EDUCATION PROGRAM

The ICA Claims Education Program is designed to provide an introduction to life or health insurance and a thorough understanding of claims administration in the life, individual health, and group areas. The program is divided into two courses of study: Course I—Principles of Life (or Health) Insurance and Course II—Life and Health Insurance Claims. The program consists of five parts in all, and a specific examination is given for each part. Only the three parts making up Course II were submitted for review. The program was developed by ICA in cooperation with the Life Office Management Association (LOMA) and is administered by the Education and Training Division.

Source of official student records: Registrar, Life Office Management Association, 100 Park Avenue, New York, New York 10017.

Claims Administration (C 3)

Location: (Independent study).

Length: Independent study.

Dates: January 1967—Present.

Objective: To acquaint the student with the approaches to handling various insurance claim situations and with the administration of the claims department.

Instruction: Approaches to handling all types of claims presented under life, health, and group insurance contracts. Life settlement options and major medical insurance; conduct of investigations, rehabilitation, antiduplication, Federal insurance programs, and tax matters; claims department organization, philosophy, functions, and cost control; special characteristics of Canadian business.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Claims Administration (1/76).

Life and Health Insurance Law (C 1)

Location: (Independent study).

Length: Independent study.

Dates: January 1965—Present.

Objective: To provide the student with an understanding of contract law as it affects life, health, and group insurance.

Instruction: Principles of contract law applied to individual and group life and health insurance. Insurable interest; policy holder and beneficiary rights; policy provisions; regulation and taxation.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category 3 semester hours in Business Law or Life and Health Insurance (1/76).

Medical Aspects of Claims (C 2)

Location: (Independent study).

Length: Independent study.

Dates: January 1966—Present.

Objective: To provide the claim examiner with knowledge of human anatomy and disease needed to evaluate life and health insurance claims.

Instruction: Introduction to anatomy, physiology, and disorders of the body systems and of the oral cavity and associated structures; dental corrective procedures; basic medical and dental terminology.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in the Life Sciences (introductory), Medical Terminology, or Pathophysiology (introductory) (1/76).

LENOX HILL HOSPITAL

Lenox Hill Hospital, founded in 1857, is a voluntary, nonprofit hospital located in Manhattan, New York. The hospital provides a full range of medical services—inpatient services for 700, an outpatient and emergency pavilion, and an ambulance service. The medical staff consists of 500 physicians and 2,500 administrative, professional-technical, clerical, and maintenance employees. The hospital is dedicated to the education and training of doctors, nurses, and other personnel and to providing the facilities for research to further medical knowledge.

The hospital's Training, Education, and Employee Development Department conducts a variety of training programs and assists employees in career development and planning. Courses are conducted in management development, employee orientation, and general topic areas.

Source of official student records: Training Director, Lenox Hill Hospital, 100 East 77 Street, New York, New York 10021.

Motivational Dynamics

Location: Lenox Hill Hospital, 100 East 77th Street, New York, NY.

Length: 36 hours (24 weeks).

Dates: September 1976—Present.

Objective: To improve the effectiveness of practicing first-line supervisors through increased knowledge of management practices and the behavioral sciences and their application on the job.

Instruction: Overview of motivational theory (McGregor, Freud, Maslow, Herzberg); group dynamics; productivity and the maintenance of morale; effective supervision; participative management; the change process; the communication process; management by objectives; organizational development. The course includes lectures, discussion, video presentations, role plays, case studies, and in-basket exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Behavioral Science or Management (8/76).

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LIFE OFFICE MANAGEMENT ASSOCIATION

The Life Office Management Association (LOMA) is a trade, research, and educational association of life insurance companies operating in the United States, Canada, and a number of other countries. The Education and Training Division sponsors a variety of programs designed for career development in the life industry. Schools, seminars, and correspondence and independent study courses are conducted in management development, instruction and training, systems training, and communications.

Source of official student records: Registrar, Education and Training Division, Life Office Management Association, 100 Park Avenue, New York, New York 10017.

FELLOW, LIFE MANAGEMENT INSTITUTE INSURANCE EDUCATION PROGRAM

The Fellow, Life Management Institute (FLMI) Insurance Education Program is intended primarily for home office and branch office employees of LOMA members. It currently enrolls more than 50,000 students a year.

The FLMI Program includes the study of life insurance, operations of life insurance companies, and management principles. To complete the Program, a student must pass eight examinations (Parts). Seven of these Parts are required; for the eighth Part, a student may elect from 10 specialized fields. The student who successfully completes seven 3-hour examinations plus the 6-hour specialty examination of his or her choice (including a section of management principles) is designated a Fellow of the Life Management Institute. A student may take additional specialty examinations. The examinations for all Parts are administered under secure conditions throughout the United States and Canada and in many locations overseas.

Classroom instruction is not a major component of the FLMI Program; rather the system is designed to assess achievement through rigorous examinations. Students prepare for the examinations by independent study, through application of acquired experience, or in some cases through classroom instruction.

Careful attention is paid by LOMA to program development; both course content and examinations are constantly reviewed to remain in line with current trends in the field. Although standard textbooks are used when appropriate, many of the assigned textbooks and instructional materials have been developed specifically for use in the Program.

Administrative Management (Part 8b-AM)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To provide managers with an awareness of the human aspects of control and information systems.

Instruction: Management control; management information systems (systems concepts, decision-making concepts, and the value of information); organizational development; technology; human aspects of control.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category (introductory), 3 semester hours in Information Systems or Management Control (11/74).

Economics and Investments (Part 5)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To provide the student with a foundation in economic principles and general investment practices.

Instruction: The nature and scope of economics; the economic process; free enterprise economic systems; money and credit; the level of economic activity; income-expenditure analysis; monetary and fiscal policies; international economics; investment goals; types of securities and securities markets.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Economics or Finance (1/75).

Electronic Data Processing (Part 8b-DP)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – May 1977.

Objective: To provide the student with an introduction to the technology of data processing and its applications.

Instruction: Fundamentals of computer systems and programming; data communications; trends in EDP technology; organization of EDP activities; computer applications in the life insurance business. Skill in a particular programming language is not developed.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Data Processing (11/74).

Group Insurance (Part 8b-GI)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To provide the student with an understanding of the development, technical aspects, and administration of group life and health insurance coverages.

Instruction: Group life insurance plans; group health insurance plans; insurance organizations; eligible groups; group insurance administration (marketing, premiums, legal provisions, underwriting, and claims); self-insurance.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Industrial Relations or Life and Health Insurance (1/75).

Introduction to Management Theory

Refer to Management Principles.

Legal Aspects of Life Insurance (Part 3)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To acquaint the student with the legal environment in which a life insurance company operates, taking into account those factors affecting the company's product (contract law and product law) and the company's operation (agency law and corporate law).

Instruction: Sources of law; elements of life insurance contracts; the policy; the policyowner's rights and obligations; the beneficiary; validity of the contract; legal remedies; group life insurance; health insurance contracts.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Business Law or Life Insurance (1/75).

Life and Health Insurance Claims (Part 8b-CL)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To familiarize the student with the medical, legal, and organizational aspects of claims administration.

Instruction: Medical aspects of claims (medical terminology, anatomy, and physiology); physical and mental disorders; claims administration (organization of the claims department, life insurance claims, health and accident insurance claims, disability claims, government insurance programs, and Canadian claims practices).

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Claims Administration or Secretarial Science (Medical) (1/75).

Life Company Operations (Part 2)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To inform the student of the various functions performed within a life insurance company and its organizational structure.

Instruction: The relationship of the life insurance industry to the economies of the United States and Canada; types of life insurers (stock, mutual, fraternal societies, savings banks); the administrative, actuarial, marketing, underwriting, policyowner service, legal, investment, and accounting functions; the future of life insurance.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Life Insurance (1/75).

Life Insurance Accounting (Part 4)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To provide the student with a background in basic life insurance accounting principles; to explain the types of transactions and entries encountered in insurance accounting.

Instruction: Fundamentals of accounting; commercial versus insurance accounting; premium and commission accounting; policy benefit settlements; expenses and taxes; accounting for investments; composition of the annual statement.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Accounting or Life Insurance (1/75).

Life Insurance Accounting (Part 8b-IA)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – May 1977.

Objective: To present an advanced study of accounting concepts and techniques for management planning and control of life insurance companies.

Instruction: A review of basic accounting concepts; analysis of financial statements; accounting for assets; accounting for liabilities; accounting for capital and retained earnings; internal auditing in life companies; functional costs in life companies.

Credit recommendation: In the upper division baccalaureate category, 4 semester hours in Accounting or Life Insurance (1/75).

Life Insurance Investments (Part 8b-LI)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To provide the student with an understanding of the policies and practices of investment management of financial institutions in varying economic environments.

Instruction: History and investment practices of financial institutions; investment risk factors; types of investments (securities, mortgage loans); valuation of assets; financial analysis.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Banking, Finance, or Insurance (1/75).

Management Principles (Part 8a) (Introduction to Management Theory)

Location: (Correspondence).

Length: Independent study.

Dates: January 1973 – Present.

Objective: To provide an introduction to general management that covers underlying behavioral concepts, research on organizations, and a survey of management science techniques.

Instruction: The evolution of the concept of management; the classical, behavioral, and management science approaches to management; management functions (planning, organizing, and controlling); motivation, leadership, and work groups; contemporary management developments; quantitative methods.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in General Management (11/74).

Management Science (Part 8b-MS)

Location: (Correspondence).

Length: Independent study.

Dates: January 1973 – Present.

Objective: To provide the student with a survey of the scientific approach to solving problems in management, emphasizing the use of mathematical descriptions or models for planning, decision, and control purposes.

Instruction: Goal setting, modeling, and implementation; decision theory; planning models; control; supportive information systems.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category (introductory), 3 semester hours in Management Science (11/74).

Mathematics of Life Insurance (Part 6)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To introduce the student to the use of mathematical and financial relationships applied by actuaries in determining life insurance premiums, dividends, policy values, and reserves.

Instruction: Review of arithmetic and algebra; simple and compound interest; accumulated value and present value; annuities certain; life annuities; mortality tables; life insurance premiums; net level premium reserves; modified reserves; nonforfeiture values; policy dividends.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Finance, Life Insurance, or Mathematics (1/75).

Office Administration (Part 7)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – May 1977.

Objective: To provide the student with a survey of the tools and techniques of effective office management, with emphasis on the considerations involved in life insurance agency administration.

Instruction: Office administration. Organization; systems and procedures; information processing; nomenclature of life insurance; agency costs and their control; performance standards and control.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Office Administration (11/74).

Pension Planning (Part 8b-PP)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To present the student with a survey of pensions, profit sharing, and deferred compensation plans and their administration.

Instruction: History of private pension plans; basic features of a pension plan; types of plans; funding considerations; cost considerations; tax considerations; pension administration; inflation and pension planning; annuities and mutual funds.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Employee Benefits, Industrial Relations, or Life Insurance (1/75).

Personnel Administration (Part 8b-PA)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To provide knowledge concerning the integration of personnel into the organization in a manner that will meet the needs of both the individual and the organization.

Instruction: Personnel management functions. Recruitment (tests and interviews, job analysis, and manpower planning); development (training, appraisal, and advancement); compensation; integration (communication and conflict); safety and health.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Personnel Administration (11/74).

Principles of Life Insurance (Part 1)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To acquaint the student with the nature of life insurance, the available plans and policies, the process of becoming insured, and the basic rights and obligations of the policyowner and the life insurance company.

Instruction: Survey of the principles of life insurance. Insurable risk; basic life insurance plans; premiums and reserves; the life insurance policy and its provisions; special policies and added benefits; industrial (debit) life insurance; group life insurance; health insurance (individual and group); annuities and retirement plans.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Life Insurance (1/75).

Selection of Risks (Part 8b-SR)

Location: (Correspondence).

Length: Independent study.

Dates: January 1965 – Present.

Objective: To provide the student with a detailed understanding of the underwriting function of life insurance companies, the management of the underwriting department, and its relationship with other departments.

Instruction: The underwriting function; physical impairments; nonphysical impairments; financial underwriting; reinsurance.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Life and Health Insurance or Secretarial Science (Medical) (1/75).

LOMA MANAGEMENT PROGRAM

The LOMA Management Program is a three-week educational program designed for life insurance company executives. It is intended to provide them with an opportunity to broaden and deepen their knowledge of the managerial process and to gain greater insight into their overall responsibilities. Speakers include university professors and business leaders. The program is offered annually, and participants come from a wide range of companies throughout the United States and Canada.

LOMA Management Program (Management Process)

Location: Tarrytown Conference Center, Tarrytown, NY.

Length: 99 hours (3 weeks); residential.

Dates: May 1970—Present.

Objective: To provide the student with the general concepts of management within the framework of three major areas: the management process; human factors in management; and environmental influences affecting the Life Insurance Industry.

Instruction: Systematic approaches to managerial thinking; the planning process; management by objectives; long-range forecasting techniques; controlling and measuring results; communications in organizations; fundamentals of human behavior; social responsibilities of business; current legislative scene; current economic problems; perspective on the future. The course includes the use of lectures and group exercises.

Credit recommendation: In the graduate degree category, 3 semester hours in Management (11/75).

LINK, INC.

LINK, Inc., a community counseling and cultural center, is a subcontractor for the Nassau County Department of Drug and Alcohol Addiction. As part of its total services, LINK provides counselor and communication training to help professionals and paraprofessionals. Trainees are given the opportunity to obtain practical experience as part of these programs.

Source of official student records: Director of Training, LINK, Inc., 27 Hempstead Avenue, Lynbrook, New York 11563.

Advanced Communication and Counseling Skills

Location: 27 Hempstead Avenue, Lynbrook, NY.

Length: 62-1/2 hours (25 weeks).

Dates: September 1974—Present.

Objective: To provide the student with an indepth examination of the counseling process.

Instruction: Development of personal counseling techniques and styles through an exploration of the various counseling theories. Extensive use of experiential exercises, including a counseling practicum, video tape feedbacks, and peer critiques. (Prerequisite: Introduction to Communication Skills.)

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Behavioral Sciences, Communications, Counseling, or Social Work (2/76).

Introduction to Communication Skills

Location: 27 Hempstead Avenue, Lynbrook, NY.

Length: 62-1/2 hours (25 weeks).

Dates: September 1974—Present.

Objective: To provide students with basic training in communication and interpersonal skills.

Instruction: Development of effective communication skills, such as building trust relationships, attending behavior, active listening, and nonverbal communication within an affective and cognitive framework. Extensive use of experiential exercises, video tape feedbacks, and peer critiques.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Behavioral Sciences, Communications, Counseling, or Social Work (2/76).

LITERACY VOLUNTEERS OF CONNECTICUT, INC.

The Literacy Volunteers of Connecticut is a voluntary organization whose goal is to reduce the number of adult and teenage functional illiterates through an individual tutoring program. It is affiliated with the Literacy Volunteers of America, Inc., which was started in Syracuse, New York, in 1962, and now operates in seven states. The Connecticut organization has four local affiliates, with approximately 250 volunteer tutors.

All volunteer literacy tutors are required to complete the basic training course "Teacher Training/Tutorial Experience." The course is open to others on a space-available basis. The course is designed to prepare the volunteer to teach basic reading successfully to a functional illiterate on a one-to-one basis, using several techniques.

Source of official student records: State Director, Literacy Volunteers of Connecticut, 55 Elizabeth Street, Hartford, Connecticut 06105.

Teaching Training/Tutorial Experience

Location: Hartford, Norwich, Stamford, and Waterbury, CT.

Length: 48 hours (12 weeks); classroom instruction and supervised tutorial training.

Dates: January 1975 – Present.

Objective: To train volunteers to teach basic reading and writing skills to adult illiterates on a one-to-one basis.

Instruction: History and organization of Literacy Volunteers of America; problem and scope of illiteracy among adults; techniques of teaching basic reading and writing; sensitivity to the environment of the functional illiterate; positive reinforcement; instructional materials; supportive agencies for referral; practical experience in tutoring. Conferences, area meetings, and inservice training are held in new materials, new techniques, and affiliate management.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Reading Instruction (2/76).

LITERACY VOLUNTEERS OF NEW YORK STATE, INC.

The Literacy Volunteers of New York State is a voluntary organization whose goal is to reduce the number of adult and teenage functional illiterates through an individual tutoring program. It is affiliated with the Literary Volunteers of America, Inc., which was started in Syracuse, New York, in 1962, and now operates in seven states. The New York State member organization has 24 local affiliates with approximately 1,700 volunteer tutors.

The Teacher Training/Tutorial Experience was developed by experts in the area of adult reading problems over a period of 10 years. It is designed to prepare the volunteer to teach basic reading successfully to functional illiterates on a one-to-one basis using several techniques.

Source of official student records: Coordinator, Literacy Volunteers of New York State, 237 Main Street, Suite 307, Buffalo, New York 14203.

Teacher Training/Tutorial Experience

Location: Affiliates in New York State: Albany, Broome County, Buffalo, Cayuga County, Clinton County, Cortland, Geneva, Glens Falls, Jamestown, Lockport, Mt. Vernon, Nassau, New York City, Niagara Falls, Northern Westchester, Olean, Oneida, Oswego County, Rochester, St. Lawrence County, Schenectady, Syracuse, Troy, and Watertown.

Length: 48 hours (15 weeks); 3 weeks classroom instruction and 12 weeks supervised tutorial experience.

Dates: July 1974 – Present.

Objective: To train volunteers to teach basic reading and writing skills to adult illiterates on a one-to-one basis.

Instruction: History and organization of Literacy Volunteers of America; problem and scope of illiteracy among adults; techniques of teaching basic reading and writing; sensitivity to the environment of the functional illiterate; positive reinforcement; instructional materials; supportive agencies for referral; practical experience in tutoring. Conferences, area meetings, and inservice training are held in new materials, new techniques, and affiliate management.

Credit recommendation: In the upper division baccalaureate category or in the graduation degree category, 3 semester hours in Reading Instruction (7/74).

MARINE MIDLAND BANK

Marine Midland Bank services all regions of New York State, with 318 branch offices in 47 counties. It is the sixth largest bank in the State and employs over 10,000 persons.

Marine Midland sponsors a broad range of programs and courses in order to provide management and staff with the opportunity to become more productive in their present jobs and for self-development.

The courses listed below are offered to employees in the Western Region of the Bank to provide them with management theory and the opportunity to question it in terms of its practical application. They have been developed by utilizing the talents of professors from local colleges, as well as the expertise of officers within the bank.

Please note that the credit recommendations apply *only* to the courses as conducted at the Buffalo location.

Source of official student records: Management Development and Staff Training Division, Marine Midland Bank – Western, Marine Midland Center, Buffalo, New York 14203.

Management Techniques

Location: Marine Midland Center, Buffalo, NY.

Length: 68 hours (17 weeks).

Dates: September 1971 – Present.

Objective: To introduce personnel with college backgrounds to specific applications of selected management concepts in commercial banking operations.

Instruction: Management concepts applied to commercial bank operations. Marketing research; forecasting; profit planning; money and portfolio management; branch banking; loan and deposit policy; customer contacts; personnel administration. Course includes a computerized commercial bank management simulation game.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Banking and Management (2/75).

Officer Development Program

Location: Marine Midland Center, Buffalo, NY; various local colleges.

Length: 84 hours (8 months).

Dates: September 1972 – Present.

Objective: To introduce assistant managers to the problems and processes of management with special reference to banking; to prepare them for increased managerial responsibilities.

Instruction: Introduction to integrative, general management problems and processes. Basic concepts of planning, leadership, communication, motivation, and decision analysis; introduction to functional areas of project management, finance, marketing, and labor relations; introduction to accounting principles. Emphasis is on the functional, day-to-day operating environment of a commercial bank (banking operations, sales and marketing, cost control, community relations, and personnel management). Course material is presented through reading assignments, class discussions, and lecture presentations. The course includes a management simulation experience emphasizing group problem-solving and decision-making behavior and an extensive analysis and report on a real bank management problem.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Integrative General Management and 3 semester hours in Commercial Bank Management or in the graduate degree category, 3 semester hours in General Management (2/75).

Personal Development Program

Location: Marine Midland Center, Buffalo, NY.

Length: 132 hours (44 weeks).

Dates: April 1975 – Present.

Objective: To assist personnel in the development of techniques of management and banking skills in preparation for possible assignment into management.

Instruction: A survey of technical and management concepts relating to commercial banking. Marketing research; forecasting and profit planning; money and portfolio management; branch banking; loan and deposit policy; customer contracts; personnel administration; an introduction to accounting principles. Course includes a computerized commercial bank management simulation game.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Banking and Management (2/75).

McGRAW-HILL, INC.

McGraw-Hill, which was founded in 1888 and is headquartered in New York City, is a leader in the fields of information and communications, both for the general public and for specialized professional areas. The corporation includes book companies, a publications company, an information systems company, a broadcasting company, and Standard and Poor's.

McGraw-Hill offers many courses to its employees to assist their professional career development. The Office Training Center is responsible for designing and conducting training programs and related activities for both new and permanent employees. These programs include specialized clerical and secretarial training courses; continuing education courses in such areas as business education and the liberal arts; skill refresher courses; and other workshops, practicums, and seminars.

Source of official student records: Manager, Office Training Center, McGraw-Hill, Inc., 1221 Avenue of the Americas, New York, New York 10020.

Advanced Shorthand Dictation Clinic (BE-102)

Location: Office Training Center, 1221 Avenue of the Americas, New York, NY.

Length: 30 hours (15 weeks).

Dates: September 1973—Present.

Objective: To increase the student's stenographic speed to 100-120 words per minute with accurate transcription.

Instruction: The course is designed to enable the student who has already mastered shorthand theory to increase his/her skills. Emphasis is on dictation and transcription to build both speed and accuracy. (Prerequisite: Shorthand II or the equivalent.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Secretarial Science (12/76).

Effective Communications (BE-401)

Location: Office Training Center, 1221 Avenue of the Americas, New York, NY.

Length: 30 hours (12 weeks).

Dates: September 1977—Present.

Objective: To enable the student to express ideas more clearly and to develop a personal writing style.

Instruction: Review of grammar and punctuation as they relate to business writing; letter format; proofreading; routine letter writing; refusal letters; sales letters; memos; proposals; library resources. Emphasis is on practice in writing memos and letters to improve writing skill and develop personal style.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Business Communication (5/77).

English for Business (BE-400)

Location: Office Training Center, 1221 Avenue of the Americas, New York, NY.

Length: 30 hours (15 weeks).

Dates: February 1977—Present.

Objective: To enable the student to develop skill in the comprehension and use of grammatical concepts and in writing to clearly express an intention.

Instruction: Initial diagnostic testing of students identifies specific problem areas (usually grammar, spelling, usage, vocabulary, and punctuation) and determines the amount of attention to be devoted to each topic. Techniques of organizing and writing business letters and memos are developed.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Business Communication (5/77).

1. Shorthand I: Theory and Basic Principles (BE-100)
2. Shorthand II: Advanced Theory, Dictation, and Transcription (BE-101)

Location: Office Training Center, 1221 Avenue of the Americas, New York, NY.

Length: 1. 50 hours (12-1/2 weeks).
2. 50 hours (12-1/2 weeks).

Dates: February 1971 – Present

Objective: **Course 1:** To provide the student with an understanding of the principles of Gregg Shorthand in order to develop skill in taking dictation of business letters and transcribing them. **Course 2:** To increase the student's stenographic speed to 80-90 words per minute and to develop skill in transcription.

Instruction: **Course 1:** The course is designed for individuals who have had no instruction in shorthand. Emphasis is on mastery of Gregg Shorthand theory (Lessons 1-21) with some dictation for speed building. No particular speed is required of the student by the end of the course. **Course 2:** Gregg Shorthand theory (Lessons 22-48); introduction of specialized terms and phrases used in the printing and publishing industry with emphasis on abbreviated phrases and brief forms; considerable practice in office dictation and transcription. (Prerequisite: Shorthand I or the equivalent.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Secretarial Science (12/76). NOTE: Both courses must be completed in order to receive credit.

Shorthand II: Advanced Theory, Dictation, and Transcription (BE-101)

Refer to Shorthand I.

Typewriting I (BE-200)

Location: Office Training Center, 1221 Avenue of the Americas, New York, NY.

Length: 50 hours (12-1/2 weeks).

Dates: September 1971 – Present.

Objective: To provide the student with a thorough knowledge of typing through finger, hand, and mental indoctrination.

Instruction: Mastery of the keyboard with a minimum attainment level of 30-35 words per minute with 95 percent accuracy; alphabetic review and stroke techniques; introduction to business letter format; addressing envelopes; setting up simple tabulations.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Secretarial Science (12/76).

Typewriting II (BE-201)

Location: Office Training Center, 1221 Avenue of the Americas, New York, NY.

Length: 50 hours (12-1/2 weeks).

Dates: September 1971 – Present.

Objective: To develop the student's typing speed to 50-55 words per minute with 95 percent accuracy.

Instruction: Advanced business letter and tabulation formats; interoffice memoranda; manuscript typing; proofreader marks; various business forms. (Prerequisite: Typewriting I or the equivalent.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Secretarial Science (12/76).

MOBIL OIL CORPORATION

The Mobil Oil Corporation is one of the 10 largest industrial corporations in the world. It is engaged in the production, manufacture, transmission, and marketing of over 5,000 petroleum and chemical products. In 1974, Mobil companies maintained business interests in over 100 countries and employed over 73,000 people.

Mobil provides a variety of training and development opportunities to help employees improve their skills, keep abreast of new developments in their fields, and prepare themselves for advancement to positions of greater responsibility. These opportunities are provided through on-the-job coaching, developmental assignments, and formal training courses.

Source of official student records: Manager, Management and Professional Development, Mobil Oil Corporation, Room 1439, 150 East 42nd Street, New York, New York 10017.

Factors in Management (Organization and Human Resource Management)

Location: Southbury, CT; various international locations.

Length: 94 hours (2 weeks); residential.

Dates: October 1971—Present.

Objective: To help managers improve their performance through the development of skills in analyzing management situations and problems and in applying more effective management actions on the job.

Instruction: Scope of the manager's job; management strategy; establishing management priorities; management of a multi-national company within a changing environment; joint venture management between governments and private corporations; personal factors in organizational effectiveness; performance improvement planning; decision making; personal growth planning. The course includes the use of lectures and group exercises.

Credit recommendation: In the graduate degree category, 3 semester hours in Management (11/75).

Human Forces in Management

Location: Various United States and international locations.

Length: 94 hours (2 weeks); residential.

Dates: May 1971—Present.

Objective: To provide awareness of one's own managerial behavior, effects of that behavior on the organization, and the exploration of alternative personal relationship strategies.

Instruction: Dynamics of organizational change; analysis of organizational problems and improvement strategies; intercultural issues in a multinational organization. Examination of member behavior in an ongoing team; power and influence in a group; analyzing and improving team performance in problem-solving situations. Two-way communications; sensitivity to feelings; giving and receiving feedback; applications of motivation theory. Personal perceptions, roles, values and attitudes; goal and career/life planning; practice in developing helping/consultative relationships. Teaching method is primarily experiential, including individual consultation with the instructional staff.

Credit recommendation: In the graduate degree category, 3 semester hours in Behavioral Sciences/Interpersonal Skills Development (5/77).

NASSAU COUNTY DEPARTMENT OF DRUG AND ALCOHOL ADDICTION

The Nassau County Department of Drug and Alcohol Addiction serves county residents who abuse alcohol and other drugs or who are potential abusers, and those who are members of their families. The Department is the official "designate" of the State Office of Drug Abuse Services in Nassau County. As part of its county-wide network of comprehensive services, the Department offers a variety of treatment services and also allocates funds to local hospitals, clinics, community groups, and schools which provide prevention and treatment services.

The Staff Development and Training Unit is responsible for the development and implementation of training programs in areas of prevention and treatment for Department staff as well as for staff and board members of the agencies funded by the Department.

Source of official student records: Office of Staff Development and Training, Nassau County Department of Drug and Alcohol Addiction, One Station Plaza North, Mineola, New York 11501.

Principles of Counseling

Location: Roosevelt Counseling Center, 42 East Fulton Avenue, Roosevelt, NY.

Length: 30 hours (15 weeks).

Dates: November 1972—Present.

Objective: To familiarize the student with some basic interviewing skills.

Instruction: Various components of the interview are examined, including psychosocial consideration, resistances encountered, and the use of some diagnostic methodologies in both group and individual work. Emphasis is on the didactic and experiential levels.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Behavioral Sciences, Counseling, or Psychology (2/76).

NASSAU COUNTY POLICE DEPARTMENT

The Nassau County Police Department serves a population of approximately 1.5 million people in Nassau County, which is located on Long Island immediately adjacent to New York City. The Department employs 4,775 persons, and its headquarters is in Mineola, New York.

RECRUIT TRAINING PROGRAM

The courses listed below constitute the academic component of the Recruit Training Program conducted by the Nassau County Police Department. This is an intensive 16-week program attended by all newly appointed officers of the Department. All courses are taught at the Police Training Center of the Department.

Source of official student records: Commanding Officer, College Education Bureau, Nassau County Police Department, 1490 Franklin Avenue, Mineola, New York 11501.

Community Relations

Location: Police Training Center, Mineola, NY.
Length: **Version 1:** 42 hours.
Version 2: 82-1/2 hours.
Version 3: 45 hours.
Dates: **Version 1:** January 1968–December 1969.
Version 2: January 1970–December 1971.
Version 3: January 1972–Present.

Objective: To present the student with a study of the practical applications of the principles of social science as they relate to the field of police/community relations.

Instruction: A survey of psychological and sociological factors affecting human behavior. Human behavior as manifested by the juvenile offender, the mentally ill, the alcohol and drug abuser, and other normal/abnormal behavior typologies. The course is from the police perspective, growing out of the dynamic relationship known as police/community relations.

Credit recommendation: Version 1 or 2: In the lower division baccalaureate/associate degree category, 3 semester hours in Criminal Justice or Criminology (10/75). **Version 3:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Criminal Justice or Criminology (1/75).

Criminal Investigation

Location: Police Training Center, Mineola, NY.
Length: **Version 1:** 44 hours.
Version 2: 50 hours.
Version 3: 45 hours.
Version 4: 52 hours.
Version 5: 41 hours.
Dates: **Version 1:** January 1965–December 1965.
Version 2: January 1966–December 1967.
Version 3: January 1968–December 1969.
Version 4: January 1970–December 1971.
Version 5: January 1972–Present.

Objective: To acquaint the student with the basic principles of criminal investigation.

Instruction: An examination of the skills and techniques needed to conduct sound police investigations with emphasis on Supreme Court guidelines. Preliminary investigations; interviews; interrogations; collection and preservation of physical evidence; consideration of criminal activities requiring specialized investigatory procedures.

Credit recommendation: Versions 1-4: In the lower division baccalaureate/associate degree category, 3 semester hours in Criminal Justice (10/75). **Version 5:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Criminal Justice (1/75).

Criminal Law and Procedure

Location: Police Training Center, Mineola, NY.

Length: **Version 1:** 81 hours.
Version 2: 91 hours.
Version 3: 70 hours.
Version 4: 107 hours.
Version 5: 56 hours.

Dates: **Version 1:** January 1965 – December 1965.
Version 2: January 1966 – December 1967.
Version 3: January 1968 – December 1969.
Version 4: January 1970 – December 1971.
Version 5: January 1972 – Present.

Objective: To provide the student with an understanding of the basic elements of criminal law and procedure.

Instruction: Versions 1-3: The New York criminal procedure law and penal law with emphasis on serious crimes and offenses (homicide, assault, arson, conspiracy, and robbery). **Versions 4 and 5:** The United States Constitution; the New York criminal procedure law; penal law; the Family Court Act. Emphasis is on serious crimes (homicide, assault, arson, conspiracy, robbery, and juvenile offenses).

Credit recommendation: Versions 1-4: In the lower division baccalaureate/associate degree category, 4 semester hours in Criminal Justice, Criminology, or Government (10/75). **Version 5:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Criminal Justice, Criminology, or Government (1/75).

Introduction to Law Enforcement

Location: Police Training Center, Mineola, NY.

Length: **Version 1:** 45-1/2 hours.
Version 2: 37-1/2 hours.
Version 3: 87 hours.
Version 4: 69-1/2 hours.
Version 5: 52 hours.

Dates: **Version 1:** January 1965 – December 1965.
Version 2: January 1966 – December 1967.
Version 3: January 1968 – December 1969.
Version 4: January 1970 – December 1971.
Version 5: January 1972 – Present.

Objective: To present the student with an introduction to law enforcement and its role within society and the criminal justice system.

Instruction: Versions 1-3: An examination of the philosophy, responsibilities, and objectives of law enforcement considered against a background of the variety, extent, and nature of crime in the United States. Law enforcement ethics; professionalism; conduct and standards for police; police organization; jurisdiction; the role of certain social agencies as they articulate with the police. **Versions 4 and 5:** An examination of the history, philosophy, responsibilities, and objectives of law enforcement considered against a background of the variety, extent, and nature of crime in the United States. Law enforcement ethics; professionalism; conduct and standards for police; police organization; jurisdiction; the role of the correctional system and certain social agencies as they articulate with the police.

Credit recommendation: Versions 1-5: In the lower division baccalaureate/associate degree category, 3 semester hours in Criminal Justice (1/75).

Physical Education

Part 1: Foundations of Physical Activity
Part 2: Self-Defense
Part 3: Accident Prevention, First Aid, and Safety Education

Location: Police Training Center, Mineola, NY.

Length: 90 hours; each part 30 hours.

Dates: **Part 1:** January 1968 – Present.
Part 2: January 1965 – Present.
Part 3: January 1965 – Present.

Objective: To prepare the student for the physiological and psychological demands involved in the work of a police officer.

Instruction: Part 1: Instruction and practice in movement skills, body mechanics, and developmental activities to attain a level of physical fitness; methods of maintaining and improving physical fitness. **Part 2:** Theory, skills, and practice of judo, karate, and aikido; boxing and wrestling techniques; fundamentals and principles of those arts; application of those arts to combative situations. **Part 3:** Principles of accident prevention; theory and practice of First Aid procedures to accident victims (shock, wounds, methods of resuscitation, sudden illnesses, emergency childbirth). Recruits receive certification by the American Red Cross.

Credit recommendation: Part 1: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate degree category, 1 semester hour in Physical Education (1/75). **Part 2:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate degree category, 1 semester hour in Physical Education (10/75). **Part 3:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate degree category, 2 semester hours in Physical Education (10/75).

Police Operations

Location: Police Training Center, Mineola, NY.

Length: **Version 1:** 56 hours; practicum of 81 hours.
Version 2: 68 hours; practicum of 82 hours.

Dates: **Version 1:** January 1970 – December 1971.
Version 2: January 1972 – Present.

Objective: To acquaint the student with the multidimensional aspects of basic police operations.

Instruction: An examination of patrol duties. The officer's role in handling crimes in progress; field notetaking; missing persons; bombs and bomb threats; crowd and riot control; arrest procedures; other situations faced by the patrol officer. Role playing and a practicum (Supervised Field Training) are used.

Credit recommendation: Versions 1 and 2: In the lower division baccalaureate/associate degree category, 4 semester hours in Criminal Justice (3 lecture, 1 Supervised Field Training) (1/75).

NEW ROCHELLE HOSPITAL MEDICAL CENTER

New Rochelle Hospital Medical Center is a voluntary nonprofit hospital located in New Rochelle, New York. The hospital provides a full range of medical services, including inpatient services for 500 and a modern extended care pavilion. The Center is staffed by more than 1,300 employees including 225 physicians and dentists.

In January 1976, the Management and Personnel Development Institute was established by the Center to provide centralized educational service to hospitals and health care facilities in Westchester and Putnam counties, New York City, Long Island, and Connecticut. Courses and programs are conducted at the Medical Center and at individual requesting hospitals in a variety of subject areas, including patient care support services, labor relations, human relations, organizational development, management skills, and problem solving.

Source of official student records: Director, Management and Personnel Development Institute, New Rochelle Hospital Medical Center, 16 Guion Place, New Rochelle, New York 10802.

Motivational Dynamics

Location: New Rochelle Hospital Medical Center, 16 Guion Place, New Rochelle, NY; Good Samaritan Hospital, 1000 Montauk Highway, West Islip, NY.

Length: 36 hours (12 weeks).

Dates: January 1976—Present.

Objective: To improve the effectiveness of upper level management personnel through increased knowledge of management practices and the behavioral sciences and their application on the job.

Instruction: Overview of motivational theory (McGregor, Freud, Maslow, and Herzberg); group dynamics; productivity and the maintenance of morale; effective supervision; participative management; the change process; the communication process; management by objectives; organizational development. The course includes lectures, discussion, video presentations, role plays, case studies, and in-basket exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Behavioral Science or Management (8/76).

NEW YORK BOTANICAL GARDEN

The central purpose of the New York Botanical Garden is the study of plants and their importance to the welfare of the planet. Living plant collections are maintained in the Conservatory, and the Herbarium contains a collection of over 4 million dried plants. The Garden's botanical/horticultural library is the largest in the United States and serves the Garden, professionals, and the general public. The aim of the Garden's Educational Services division is to interest and instruct the general public of the metropolitan New York area in the various aspects of plant life.

CONTINUING EDUCATION PROGRAM

Through the Continuing Education Program, the Garden offers more than 100 courses each year including botany, horticulture, gardening, landscape design, environmental studies, plant crafts, and related topics. Within the instructional program, three major programs of study are offered: Botany, Gardening, and Landscape Gardening. In order to complete a program and receive a certificate, students must complete at least seven courses within a prescribed curriculum.

Source of official student records: Registrar, New York Botanical Garden, Bronx, New York 10458.

Basic Botany

Refer to General Botany.

Cryptogamic Botany

Refer to Plant Morphology and Taxonomy.

Evolutionary Biology

Refer to Genetics and Evolution.

Field Botany

1. **Field Botany (Crypotogams)**
2. **Local Flora in Spring (Phanerogams)**
3. **Natural Vegetation (Ecology)**

Location: New York Botanical Garden, Bronx, NY.

Length: 1. 12 hours (8 weeks).
2. 12 hours (8 weeks).
3. 12 hours (8 weeks).

Dates: September 1975—Present.

Objective: To provide the student with a study of plants in relation to their environment.

Instruction: Study of the ecosystem and primary production; description and classification of vegetation; vegetation dynamics; environmental gradient and plant distribution; forest types; history of local vegetation. Field trips are conducted to study local vegetation.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Ecology or Field Botany (9/75).

Field Botany (Cryptogams)

Refer to Field Botany.

General Botany

1. **Basic Botany**
2. **Plant Form and Function**
3. **Plant Physiology**

Location: New York Botanical Garden, Bronx, NY.

Length: 1. 15 hours (10 weeks).
2. 12 hours (8 weeks).
3. 12 hours (8 weeks).

Dates: September 1975—Present.

Objective: To provide a study of the morphology and physiology of seed plants.

Instruction: Plant anatomy and physiology; genetics; diversity and systematics; nutrition; growth and development.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in General Botany (9/75).

General Genetics

Refer to Genetics and Evolution.

Genetics and Evolution

1. **Evolutionary Biology**
2. **General Genetics**
3. **Paleobotany**

Location: New York Botanical Garden, Bronx, NY.

Length: 1. 12 hours (8 weeks).
2. 12 hours (8 weeks).
3. 12 hours (8 weeks).

Dates: September 1975 – Present.

Objective: To provide an introduction to Mendelian and non-Mendelian gene inheritance patterns; to provide a study of the theoretical and factual aspects of the fossil record and evolution, particularly of plants.

Instruction: Mechanisms of evolution; paleoecology; morphological and physiological trends in the fossil record; techniques of paleochemotaxonomy, geochemistry, and computer analysis as applied to historical biology; plant genetics (Mendelian and non-Mendelian).

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Genetics and Evolution (9/75).

Home Landscaping and Garden Maintenance

1. **Lawns and Grounds Maintenance**
2. **Plant Pests and Diseases**
3. **Plants for Landscaping Your Home**
4. **Vegetable Gardening**

Location: New York Botanical Garden, Bronx, NY.

Length: 1. 12 hours (8 weeks).
2. 12 hours (8 weeks).
3. 12 hours (6 weeks).
4. 12 hours (8 weeks).

Dates: September 1975 – Present.

Objective: To provide instruction in landscaping the home and maintaining the plant material used.

Instruction: Basic design principles; foundation plantings; use of flowers in the design; planting; pruning; fertilizing; care of the plant material used in the design; insects and plant diseases. Instruction in vegetable gardening is also included.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Home Landscaping (1 lecture, 1 laboratory) (9/75).

Lawns and Grounds Maintenance

Refer to Home Landscaping and Garden Maintenance.

Local Flora in Spring (Phanerogams)

Refer to Field Botany.

Morphology of Flowering Plants

Refer to Plant Morphology and Taxonomy.

Natural Vegetation (Ecology)

Refer to Field Botany.

Paleobotany

Refer to Genetics and Evolution.

Plant Form and Function

Refer to General Botany.

Plant Morphology and Taxonomy

1. **Cryptogamic Botany**
2. **Morphology of Flowering Plants**
3. **Systematic Botany**

Location: New York Botanical Garden, Bronx, NY.

Length: 1. 12 hours (8 weeks).
2. 20 hours (9 weeks).
3. 12 hours (8 weeks).

Dates: September 1975 – Present.

Objective: To provide the student with a study of the morphology and taxonomy of flowering plants.

Instruction: Survey of cryptogamic plants; evolutionary significance of plant parts in terms of its application to the classification of flowering plants; structure of flowers; plant identification and classification.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Plant Morphology and Taxonomy (9/75).

Plant Pests and Diseases

Refer to Home Landscaping and Garden Maintenance.

Plant Physiology

Refer to General Botany.

Plants for Landscaping Your Home

Refer to Home Landscaping and Garden Maintenance.

Systematic Botany

Refer to Plant Morphology and Taxonomy.

Vegetable Gardening

Refer to Home Landscaping and Garden Maintenance.

NEW YORK CITY DEPARTMENT OF EMPLOYMENT

The Department of Employment (DOE) was created to coordinate the manpower efforts of business, labor, and community organizations to meet the employment needs of New York City. Through 11 Comprehensive Manpower Centers and 26 Neighborhood Manpower Service Centers, unemployed persons are interviewed, counseled, tested, trained, and placed in jobs.

The Office of Staff Development and Training offers a wide range of courses to staff within the Department. The curriculum includes agency orientation, interviewing, supervision, communication skills, job development, organizational development skills, planning skills, case management, testing, and other courses tailored to meet specific requirements. Training is conducted both on site and at the Office's training facility where video tape and other technical aids provide versatility in structuring learning activities.

Source of official student records: Director, Department of Employment, Office of Staff Development and Training, 460 West 42d Street, New York, New York 10036.

Basic Interviewing (B II)

Location: 460 West 42d Street, New York, NY.

Length: 45 hours (15 weeks).

Dates: January 1974 – Present.

Objective: To provide the student with a working knowledge of the interview process.

Instruction: Interviewing as a problem-solving skill; climate setting, developing trust, and opening and maintaining communication channels. Skills are developed through the use of films, reading materials, student logs, and video tape and practice interviews.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Counseling, Education, or Social Science (8/75).

Case Management Supervision (D III)

Location: 460 West 42d Street, New York, NY.

Length: **Version 1:** 45 hours (15 weeks).
Version 2: 44 hours (11 weeks).

Dates: **Version 1:** August 1975 – February 1976.
Version 2: March 1976 – Present.

Objective: To train supervisors of case workers in supervisory practices, particularly as related to case supervision.

Instruction: Social and psychological analysis of the role of work in our society and the role of the case supervisor. Intensive application of the supervisory training of counselors utilizing the techniques of role playing, microsupervision, and case conferences. (Prerequisite: Basic Supervision or equivalent supervised experience.)

Credit recommendation: In the graduate degree category, 3 semester hours in Community Psychology, Counseling, Education, Industrial Psychology, or Social Work (8/75).

Descriptive Statistics

Location: 460 West 42d Street, New York, NY.

Length: 45 hours (15 weeks).

Dates: August 1975 – Present.

Objective: To provide the student with an introduction to basic concepts of descriptive statistics.

Instruction: Basic measures of central tendency and variability; percentiles; regression; correlation; mathematical terminology and formulas used in basic statistics. The course provides practice in the computation and use of basic statistical indices and in the preparation of graphs and charts.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Statistics (8/75).

Human Relations Laboratory: Personal Development and Group Dynamics (B XVI, E IX)

Location: 460 West 42d Street, New York, NY.

Length: 105 hours (15 weeks).

Dates: September 1973—Present.

Objective: To stimulate and support the personal growth of the student through the development of human relations skills and interpersonal insights.

Instruction: Application of theory and concepts toward the development of human relations skills (understanding the effect of one's behavior, listening and understanding others, giving and receiving feedback, and increasing effectiveness in shared leadership and membership functions) and interpersonal insights (sensitivity to others and self, understanding dynamics of groups). Techniques and resources include role playing, video taping, and a weekly log kept by each student.

Credit recommendation: In the upper division baccalaureate category, 6 semester hours in Behavioral and Social Sciences (3 theory, 3 laboratory) or in the graduate degree category, 6 semester hours in Counseling Psychology, Educational Psychology, Human Relations, Management Development, Public Administration, Recreation Administration, or Social Work (3 theory, 3 laboratory) (8/75).

Introduction to Basic Employment Assessment (B V)

Location: 460 West 42d Street, New York, NY.

Length: 45 hours (15 weeks).

Dates: September 1973—Present.

Objective: To provide participants with a basic understanding of psychometrics and specifically employment-related testing.

Instruction: Administration and scoring of tests; interpretation of test results; helping clients relate test results to their vocational plans; psychometric terminology; introduction to basic psychometric statistics. Achievement, aptitude, personality, interest, and work-sample methods of evaluation are explored through the experiential method.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Counseling, Education, or Psychology (8/75).

Management Development (D IV)

Location: 460 West 42d Street, New York, NY.

Length: 105 hours (15 weeks).

Dates: September 1973—Present.

Objective: To provide managers, administrators, and supervisors with an understanding of the major functions of management and to develop the skills leading to managerial success.

Introduction: Theory and application of management by objective and results. Goal planning and programming; problem solving; decision making; managerial styles; communication; conflict management; influence; planned change. Emphasis is on group participation in a problem-solving setting. Techniques and resources include role playing, case studies, in-basket exercises, video taping, a notebook of relevant readings, and a weekly log kept by each student.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 6 semester hours in Business and/or Public Administration, Industrial Psychology, Labor Relations, or Social Work (8/75).

Manpower Vocational Counseling Techniques

Location: 460 West 42d Street, New York, NY.

Length: 45 hours (15 weeks).

Dates: August 1975—Present.

Objective: To train vocational counselors, employment interviewers, and related staff members in the use of counseling techniques with particular emphasis on manpower behavioral counseling.

Instruction: Assessment of client's wishes and potential; synthesizing the client's wishes and potential; negotiation of a compromise of this synthesis with the actual possibilities in the words of work and training. Emphasis is on vocational planning, career development, working on behavioral objectives, and vocational problem solving. (Prerequisite: Basic Interviewing or one year of supervised counseling experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Industrial Psychology or Vocational Counseling (8/75).

Micro-Interviewing

Location: Harlem Income Maintenance Center 32, 165 East 126th Street, New York, NY; 460 West 42d Street, New York, NY; various centers.

Length: 45 hours (15 weeks).

Dates: January 1975 – Present.

Objective: To enable intake workers, case managers, and case workers to develop the basic skills needed to conduct various kinds of interviews.

Instruction: Indepth investigation of the interview as the forum for important communication between client and interviewer. By detailed examination of short segments of interviews, the students develop and practice interviewing skills. Students role play short interviews which are video and/or audio taped, receive feedback, and continue or redo the initial role play incorporating the suggestions made by the group. (Prerequisite: Basic Interviewing or six months supervised interviewing or counseling experience.)

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 2 semester hours in Clinical Psychology, Counseling, Education, Social Work, or Sociology (8/75).

New York City Institutions that Affect the Unemployed (B X)

Location: 460 West 42d Street, New York, NY.

Length: 105 hours (15 weeks).

Dates: September 1974 – Present.

Objective: To provide a field visit program to enable the student to observe and evaluate the nature of the various institutions that provide service to the poor.

Instruction: Lectures, discussions, and field visits to a variety of legal, health, and educational institutions that serve the clients of the students in the course. After each visit, each student prepares written observations and an evaluation of the delivery and use of the services provided.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Community Mental Health, Social Work, or Sociology (8/75).

NEW YORK CITY POLICE DEPARTMENT

The New York City Police Department serves the citizens of the five boroughs of the city. It is the nation's largest police agency, employing approximately 27,000 persons. In addition to a large patrol force, the Department has a wide variety of specialized law enforcement units. Some 2,000 officers have completed college, and 10,000 are currently enrolled in degree programs.

The City Police Academy is responsible for conducting formal training programs within the Department. In addition to its entry-level programs, the Academy develops and conducts inservice courses in organization, management, and such specialized areas as investigation, crime prevention, and security for both its own personnel and those of other criminal justice agencies. The Academy also evaluates and coordinates decentralized training programs and acts as the liaison between the Department and higher education institutions.

Source of official student records: Records Officer, Police Academy, 235 East 20th Street, New York, New York 10003.

INSERVICE COURSES

Basic Criminal Investigator's Course

Location: Police Academy, 235 East 20th Street, New York, NY.

Length: 105 hours (3 weeks).

Dates: February 1976 – Present.

Objective: To provide law enforcement personnel with an understanding of the theory and practice of criminal investigation.

Instruction: The law and investigative techniques as they relate to specialized types of investigation, such as those relating to organized crime, drug abuse, stolen credit cards, and juvenile offenders; the development of verbal skills and strategies for interviewing in various criminal situations; standards of proof; surveillance techniques; courtroom testimony. The course includes guest lectures by experts in special topics and practical exercises in field investigations.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Criminal Justice or Criminal Science (10/76).

Basic Management Orientation Course

Location: Police Academy, 235 East 20th Street, New York, NY.

Length: 210 hours (6 weeks).

Dates: October 1974 – Present.

Objective: To provide the police supervisor with the necessary management concepts and techniques to adequately perform his/her role.

Instruction: Development of management theory and its application to the law enforcement function; consideration of the works of Blake, Mouton, McGregor, Maslow, Herzberg, and others; the behavioral science approach to management; techniques of problem solving. Supervisory concepts and practices; legal duties of police supervisory personnel; administrative duties of first-line supervisors; motivation and training of personnel. Methods of instruction; communications structure; oral communications skill; managing intergroup relations; psychology of communication.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Communication and 3 semester hours in Personnel Management (10/76).

Basic Management Theory and Techniques

Location: Police Academy, 235 East 20th Street, New York, NY.

Length: 48 hours (16 weeks).

Dates: February 1969 – Present.

Objective: To enable the police supervisor to apply management techniques, theories, and concepts in his/her work.

Instruction: Development of management theory and its application to the law enforcement function; consideration of the works of Blake, Mouton, McGregor, Maslow, Herzberg, and others; the behavioral science approach to management; A.M.A. Standards of Performance Program; techniques of problem solving. The course includes the use of case studies and role playing.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Personnel Management (10/76).

Basic Spanish for Police Officers

1. **Introduction to Spanish Language**
2. **Intermediate Spanish for Police Officers**

Location: Various locations in New York City.

Length: 1. 140 hours (7 weeks).
2. 120 hours (6 weeks).

Dates: September 1972 – Present.

Objective: To develop in law enforcement officers the basic skills in the Spanish language, with emphasis on conversation, in order that they may communicate more effectively with the Hispanic community in New York City.

Instruction: Formulation of the basic grammatical knowledge needed for students to use Spanish properly, and development of an active vocabulary of 1,500 words. All tenses of the indicative; the four cases of articles and nouns; singular and plural forms; pronouns; adjectival endings; basic word order of sentences; the conditional and imperfect forms of regular verbs; irregular verbs. Emphasis is on idioms and terminology applicable to the daily needs of police officers. The course includes the use of group and individual, self-paced instruction with programmed materials, role playing, and tapes. The course is enriched through planned field experiences in addition to regular classroom instruction covering the culture and history of Hispanics in New York City.

Credit recommendation: In the lower division baccalaureate/associate degree category, 6 semester hours in Spanish (10/76). NOTE: Courses 1 and 2 must both be completed in order to receive credit. If a student obtains the highest possible rating on the scale used in these two courses, and if the Police Department supplies a detailed written evaluation of that student, a school may consider granting additional credit.

Homicide Investigations

Location: New York State Armory, 125 West 14th Street, New York, NY.

Length: 70 hours (2 weeks).

Dates: October 1976 – Present.

Objective: To provide the experienced investigator with an understanding of advanced techniques in the field of homicide investigations.

Instruction: Comprehensive and intensive treatment of concepts and techniques in homicide investigations. Law of homicide; typologies of homicide, such as sudden, suspicious, and violent death, sex oriented and other felony homicides, and traumatic deaths; interaction of the components of the criminal justice system in homicide cases. (Prerequisite: Criminal Investigation, or Basic Criminal Investigator's Course, or an equivalent course.)

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Criminal Justice or Criminal Science (10/76). NOTE: A college should carefully consider the granting of credit to a student for more than one advanced investigatory course because of the similarity in subject matter covered.

Intermediate Spanish for Police Officers

Refer to Basic Spanish for Police Officers.

Internal Investigations

Location: 74 Poplar Street, Brooklyn, NY.

Length: 70 hours (2 weeks).

Dates: January 1973 – Present.

Objective: To provide the law enforcement officer with an understanding and application of the techniques for conducting internal investigations in law enforcement work.

Instruction: Proper procedures for investigating alleged police misbehavior to insure that such investigations are conducted in an objective and thorough manner and that standardized methods are followed throughout the Department; court decisions in the areas of Miranda Rights, search and seizure and seizure limitations, lineup procedures and administrative hearings where petitioners are police officers; interview, interrogation, and surveillance techniques; report writing. (Prerequisite: Criminal Investigation, or Basic Criminal Investigator's Course, or an equivalent course.)

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Criminal Justice or Criminal Science (10/76). NOTE: A college should carefully consider the granting of credit to a student for more than one advanced investigatory course because of the similarity in subject matter covered.

Introduction to Spanish Language

Refer to Basic Spanish for Police Officers.

Robbery Investigations

Location: New York State Armory, 125 West 14th Street, New York, NY.

Length: 35 hours (1 week).

Dates: October 1976 – Present.

Objective: To provide the experienced investigator with an understanding of advanced techniques in the field of commercial robbery investigations.

Instruction: Comprehensive and intensive treatment of concepts and techniques in commercial robbery investigations. Law of robbery; climate of robbery; investigation of a robbery case; robbery alert; hostage situations. (Prerequisite: Criminal Investigation, or Basic Criminal Investigator's Course, or an equivalent course.)

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Criminal Justice or Criminal Science (10/76). NOTE: A college should carefully consider the granting of credit to a student for more than one advanced investigatory course because of the similarity in subject matter covered.

Security Operations

Location: Police Academy, 235 East 20th Street, New York, NY.

Length: 68 hours (18 weeks).

Dates: December 1972 – Present.

Objective: To provide the student with an understanding of security techniques in order to reduce and prevent losses due to theft and casualty.

Instruction: External security: methods of entry; locks; alarms; safety devices; risk analysis. Internal security: security planning and surveys; control of personnel and visitors; commercial, residential, and industrial security; civil disturbances in high-rise buildings. Report writing. Law of arrest.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Security Administration (10/76).

Sex Crimes Investigations

Location: New York State Armory, 125 West 14th Street, New York, NY.

Length: 35 hours (1 week).

Dates: October 1976 – Present.

Objective: To provide the experienced investigator with an understanding of advanced techniques in the field of sex crimes investigations.

Instruction: Crisis intervention techniques; theory of victimization; psychology of the sex crime victim; sex crime laws; sexual deviations; evidence gathering and search of the crime scene; trial testimony. (Prerequisite: Criminal Investigation, or Basic Criminal Investigator's Course, or an equivalent course.)

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Criminal Justice, Criminal Science, or Social Science (10/76). NOTE: A college should carefully consider the granting of credit to a student for more than one advanced investigatory course because of the similarity in subject matter covered.

STUDENT OFFICER TRAINING PROGRAM

The courses listed below constitute the academic component of the Student Officer Training Program conducted by the New York City Police Academy. This intensive program consists of 22 weeks of classroom instruction, supplemented by a nine-week supervised internship in a precinct. It is attended by all new recruits to the Police Department. The present curriculum is the result of a revision of the previous Recruit Training Program which the Department undertook in October 1973 and which involved outside experts as well as Department personnel. The first class to receive the new curriculum in its entirety graduated from the Academy on June 11, 1974. All of these courses other than the internship are taught at the Academy.

Community Relations for Police

Length: 75 hours.

Dates: January 1974 – Present.

Objective: To provide the student with knowledge of his/her role in the community and the expectations of the community he/she serves.

Instruction: Exploration of the etiology, manifestations, and proposed solutions for noncrime-related problems that the police service is called upon to resolve. Discussion of children, adolescents, and the problem of juvenile delinquency; intergroup relations, communications theory, and interviewing; crisis intervention and conflict management; treatment of geographical structures and ethnic communities in New York City.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Criminal Justice, Social Science, or Social Work (8/74).

Criminal Investigation

Length: 60 hours.

Dates: January 1974—Present.

Objective: To provide the student with knowledge of his/her responsibilities as the first police representative at the crime scene.

Instruction: General principles of investigation, with suggested procedures for specific types of law violators; reporting procedures necessary for statistical studies and specialist followup; aspects of crime prevention as they relate to the police officer's role.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Criminal Justice (8/74).

Criminal Law

Length: 63 hours.

Dates: January 1974—Present.

Objective: To provide the student with practical working knowledge of specific criminal offenses.

Instruction: Comprehensive analysis of criminal law and procedures; methods of interpretation of criminal statutes; statutory definitions of crime; study of case law related to criminal statutes and applications to specific situations. Emphasis is on the underlying framework of criminal law.

Credit recommendation: In the upper division baccalaureate category, 4 semester hours in Criminal Justice or Criminology (8/74).

Internship in Criminal Justice

Length: 360 hours (9 weeks).

Dates: January 1974—Present.

Objective: To provide field experience as part of the Student Officer Training Program.

Instruction: Structured field experience during which the student officer is introduced to the practical application of police theory and technique. Criminal justice procedures; precinct organizational structure (neighborhood police teams and functional management); crisis intervention; community relations activities; reaction control training; investigatory skills; preventive patrol techniques. Individual students are assigned on a rotating basis to selected field training officers who receive special training and extra compensation for their role. The training officers supervise the field experience and evaluate the performance of the students three times during the internship. The final evaluation and certification as a police officer takes place at the end of the probationary year.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 6 semester hours as an Internship in Criminal Justice (8/74).

Introduction to Law

Length: 62 hours.

Dates: January 1974—Present.

Objective: To provide the student with a basic introductory course in law with emphasis on the development of legal principles and concepts and with application to law enforcement.

Instruction: The nature of law in contemporary society; study of the U.S. Constitution with emphasis on the Bill of Rights and the Fourteenth Amendment; constitutional rights of the accused; the police officer and the judicial process; application of legal concepts (probable cause, stop, questions, and frisk); court testimony.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Criminology, Government, Police Science, or Political Science (8/74).

Introduction to Law Enforcement

Length: 90 hours.

Dates: January 1974—Present.

Objective: To provide the student with an introduction to law enforcement and its role within society with specific reference to the function of the patrol officer.

Instruction: Role of law enforcement and the individual police officer's participation; departmental structure, policy, and the rationale of each; individual member's internal and external relationships and functions; purposes and operations of police patrol; skills, techniques, resources, and statutes with which the officer must be familiar.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Criminal Justice (8/74).

Introduction to Social Psychology

Length: 63 hours.

Dates: January 1974—Present.

Objective: To provide the student with knowledge of human behavior that he/she can anticipate upon becoming a police officer.

Instruction: Personality; crisis intervention; conflict management; interpersonal interaction; small group dynamics; adolescent behavior; communication theory; transactional analysis.

Credit recommendation: In the upper division baccalaureate category, 4 semester hours in Behavioral Sciences, Criminal Justice, Social Science, or Social Work (8/74).

Physical Education

Part 1: Foundations of Physical Activity
Part 2: Lifesaving Techniques
Part 3: Safety Education, Accident Prevention, and First Aid
Part 4: Self-Defense
Part 5: Swimming I
Part 6: Swimming II

Length: 170 hours.

Dates: January 1974—Present.

Objective: To prepare the student for the physiological and psychological demands involved in the work of a police officer.

Instruction: **Part 1:** Survey of physiological, psychological, and sociological aspects of physical fitness; skills, body mechanics, and methods of maintaining and improving physical fitness; role of physical conditioning, nutrition, and basic health habits. **Part 2:** Advanced survival techniques and strokes; safety procedures; use of flotation devices and safety aids. American Red Cross Senior Lifesaving Certificate is issued to all who pass the senior lifesaving tests. **Part 3:** Principles of safety; theory and practice of first aid procedures in emergency situations (shock, wounds, heart attacks, strokes) and extrications from dangerous situations. **Part 4:** Theory, skills, and practice of judo, karate, and boxing techniques; basic blows, throws, and defenses; application of these skills to combative situations. **Part 5:** Fundamentals of water safety; instruction and practice in various swimming techniques and in elementary forms of diving. **Part 6:** Intermediate swimming; basic water safety techniques; emphasis on form and endurance in the crawl, sidestroke, breaststroke, and elementary backstroke.

Credit recommendation: **Part 1:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Physical Education (8/74). **Part 2:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Physical Education (8/74). **Part 3:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Physical Education (8/74). **Part 4:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Physical Education (8/74). **Part 5:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Physical Education (8/74). **Part 6:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Physical Education (8/74).

NEW YORK COUNCIL ON ALCOHOLISM, INC.—ACCEPT

The New York Council on Alcoholism, Inc is a voluntary health agency which provides treatment for alcoholics. The ACCEPT Unit, affiliated with Cabrini Health Care Center, provides comprehensive care for adult and adolescent alcoholics and their families in the New York City metropolitan area. The Training Unit provides educational programs for students, counselors, administrators, health providers, and treatment personnel. The professional staff conducts these programs, with the assistance of adjunct faculty drawn from city agencies and community-oriented facilities in the area.

Source of official student records: Director of Training, New York Council on Alcoholism, Inc.—ACCEPT, 300 Park Avenue South, New York, New York 10010.

Training Course for Employee Alcoholism Counselors (Survey of Alcoholism; Its Nature and Treatment in the Work Setting)

Location: 300 Park Avenue South, New York, NY.

Length: 51 hours (8 weeks).

Dates: September 1974—Present.

Objective: To provide participants from business, labor, government, and health-related facilities with an overview of the physiological, sociological, psychological and treatment aspects of alcoholism.

Instruction: Description of the role of the counselor in working with alcoholics; the pathology and psychiatric diagnosis of alcoholism; the modalities of treatment; organizational problems and agency programs; an analysis of comprehensive care; cultural factors and adolescent problems of alcoholism. The course consists of lectures and discussions which are supplemented by field trips to agencies concerned with the counseling or treatment of alcoholics.

Credit recommendation: In the upper division baccalaureate degree category, 3 semester hours in Social Science (6/76).

NEW YORK STATE ASSOCIATION OF REALTORS, INC.

The New York State Association of Realtors, Inc. (NYSAR) is a nonprofit association of the 52 local real estate boards in New York State. NYSAR serves its member Realtors through the promotion and maintenance of ethical standards in the profession, the support of legislation relating to real estate, and the provision of continued professional education for members and consumer education for residents of the State.

NEW YORK REALTORS' INSTITUTE

The New York Realtors' Institute was established in 1969 to offer Graduate, Realtors' Institute (GRI) courses in the State according to standards developed by the National Association of Realtors. Upon successful completion of GRI Courses I-III, the realtor is awarded the designation GRI, Graduate of the Realtors' Institute. Completion of all four courses satisfies the educational requirements for the New York State Broker's License Examination. Courses I, II, and III must be completed in order, although Course IV may be taken at any point after Course I.

Source of official student records: Educational Activities Office, New York State Association of Realtors, Inc., Executive Park Tower, Western Avenue at Fuller Road, Albany, New York 12203.

Graduate, Realtors' Institute Course I (Principles of Real Estate)

Location: Locations throughout New York State.

Length: 33 hours (1-3 weeks).

Dates: January 1975—Present.

Objective: To provide the student with a basic knowledge of the legal, practical, and procedural aspects of the real estate brokerage business, with emphasis on residential brokerage.

Instruction: Legal aspects; financing; residential construction; estimating a listing price; introduction to residential brokerage; listing and marketing properties; personal and career management; organization; urban growth, structure, and change; ethics.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Real Estate Principles (5/77).

Graduate, Realtors' Institute Course II (Principles of Real Estate)

Location: Locations throughout New York State.

Length: 32 hours (1-3 weeks).

Dates: January 1975—Present.

Objective: To expand on the legal, practical, and procedural aspects of the real estate brokerage business covered in Course I. To introduce the residential associate to some aspects of commercial brokerage.

Instruction: Advanced legal aspects (title and title problems, deeds, leases, mortgages, and condominiums); real estate market analysis, truth-in-lending; marketing commercial real estate; appraisal methods; review of real estate mathematics and use of the calculator; advanced construction; taxation; personal selling; design criteria of a residential subdivision. (Prerequisite: GRI Course I.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Real Estate Principles (5/77).

Graduate, Realtors' Institute Course III (Commercial Investment Real Estate)

Location: Locations throughout New York State.

Length: 30 hours (1 week).

Dates: January 1975—Present.

Objective: To provide the student with the knowledge and skills required to execute simple investment brokerage transactions and perform the rudiments of property management, office management, and industrial and commercial real estate brokerage.

Instruction: Introduction to investment and estate; financing investment real estate; Federal taxation and real estate investment; types of investment property; estimating the stream of cash flow generated by a real estate investment; pricing investment property; shopping centers and leasing; operation of a real estate broker's office; property management. (Prerequisite: GRI Course II.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Commercial Investment Real Estate (5/77).

Graduate, Realtors' Institute Course IV (Principles of Real Estate)

Location: Locations throughout New York State.

Length: 33 hours (1-3 weeks).

Dates: July 1976—Present.

Objective: To provide the student with a working knowledge of the legal aspects of the real estate transaction.

Instruction: Interests in realty; general business law; liens and easements; leases; bonds and mortgages; deeds; agency; license law; rent regulation; voluntary and involuntary alienation; real estate contracts; review. (Prerequisite: GRI Course I.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Real Estate Principles (5/77).

NEW YORK STATE BANKERS ASSOCIATION

The New York State Bankers Association is a nonprofit trade association of 280 commercial banks organized to promote the general welfare and usefulness of commercial banks and trust companies in the State. The association comprises three divisions (commercial banking, consumer credit, and trust) and provides services in the areas of communications, education, government relations, insurance, and research.

The Education Section develops and administers educational and professional training programs for the employees of member banks. Courses are provided in response to the expressed needs of the membership and range from short meetings and seminars to three-week residential courses.

Source of official student records: Registrar, New York State Bankers Association, 485 Lexington Avenue, New York, New York 10017.

Bankers School of Agriculture

Location: Cornell University, Ithaca, NY.

Length: 62 hours (1 year); two one-week residential sessions.

Dates: August 1976 – Present.

Objective: To provide the student with a comprehensive introduction to agricultural economics.

Instruction: Farm management; agronomy; planning for farm investments; dairy husbandry; farm appraisal; analysis of farm credit cases; economics of farm equipment and structures; public problems of agriculture and rural affairs; marketing bank services to farmers. The course includes field trips to illustrate and supplement the classroom instruction.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Agricultural Economics (6/77).

Consumer Credit School

Location: Hotel Thayer, West Point, NY.

Length: 80 hours (2 weeks); residential.

Dates: September 1976 – Present.

Objective: To familiarize the student with those technical and managerial factors relevant to modern consumer banking.

Instruction: Economics; direct and indirect lending; security and fraud; marketing and administration; bank credit cards; collections; insurance; leasing; operations; electronic funds transfer systems; modern management techniques; legal and historical aspects of consumer credit.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Commercial Bank Management (6/77).

EDP Audit and Control School

Location: Hotel Thayer, West Point, NY.

Length: 40 hours (1 week); residential.

Dates: November 1975 – Present.

Objective: To provide the student with a comprehensive exposure to EDP auditing.

Instruction: Background of electronic data processing and EDP auditing; computer center staff and organization; EDP auditing responsibilities; evaluation of internal controls (data center controls, control of EDP services); EDP applications and new evaluation techniques; demand deposit accounting; analysis of audit software; importance of audit involvement in EDP planning and design (system and account testing, the auditor's role, the EDP feasibility study, and designing, programming, and implementing a computer application); developing an EDP audit work program; future EDP trends. (Prerequisite: Background in accounting, auditing, and financial statement analysis.)

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Accounting, Electronic Data Processing, EDP Audit and Control, or Finance (6/77).

Management School for Career Development

Location: Hotel Thayer, West Point, NY.

Length: 120 hours (1 year); three one-week residential sessions.

Dates: April 1977 – Present.

Objective: To provide the student with an introduction to financial management and general management.

Instruction: Financial management: overview of bank accounting; management of assets and liabilities; analysis of bank financial statements; functional management responsibilities (bank financial operation, portfolio analysis, commercial lending, commercial bank operations, and monetary economics). Management: introduction to basic management responsibilities, including management by objectives, employee relations, planning and control, organization, and EDP management.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Financial Management and 2 semester hours in Management (6/77).

NEW YORK STATE DEPARTMENT OF CIVIL SERVICE

The Department of Civil Service is the central personnel agency for New York State government. It also provides local civil service agencies with many of the services offered to State agencies. Its functions include recruiting; testing and placement of job applicants; reviewing personnel transactions; classifying jobs and allocating them to salary grades; and such personnel services as training, health insurance, and management development. Special programs are conducted to increase employment opportunities for members of minority groups with disadvantaged backgrounds.

Source of official student records: Department of Civil Service, Training Section, State Office Building Campus, Building 1, Albany, New York 12239.

Introduction to EDP—Technical (B-1-110)

Location: Training Section classrooms, State Office Building Campus, Albany, NY.

Length: 138 hours.

Dates: January 1974—September 1976.

Objective: To provide a broad and comprehensive introduction to data processing to further the career development of those who will be directly involved with New York State EDP activities.

Instruction: Hardware concepts; systems and programming concepts; case study; programming languages concepts. The course contains no practical computer programming experience. Lecture and discussion is supplemented by laboratory/workshops and a case study in computer systems design.

Credit recommendation: In the lower division baccalaureate/associate degree category, 6 semester hours in Data Processing (2/75).

PUBLIC ADMINISTRATION TRAINING PROGRAM

The Public Administration Training Program is designed for carefully selected New York State agency employees (trainees) and qualified recent graduates of Master's programs in various disciplines (interns). The trainees and interns participate together in this yearlong program which focuses on the basic principles of public administration.

An important tool in the delivery of the program material is the use of weeklong institutes in which experienced academicians and practitioners discuss with the students their knowledge of budgeting, management analysis, the organization of New York State government, and personnel administration. Those concepts are then applied to different current issues in the field. The current issues to be covered each year in the six institutes are decided upon by student consensus based on their combined interests and learning needs. Thus, the concepts taught each year remain the same, while the focus of their application varies according to the circumstances of the time.

On-the-job training plays a significant role in this program. While working with their supervisor and agency training officer, the trainees and interns have the opportunity of applying these new concepts to actual on-the-job situations. Both the trainees' and the interns' working supervisors and the program supervisor in the Department of Civil Service evaluate and report on the students' performance in the program.

At the conclusion of the program, students are required to submit joint research projects which report on their application of recently learned concepts to a specific problem in the field of public administration.

Please note that the credit recommendation which has been established is *only* for the material covered in the six institutes. No attempt was made to evaluate the on-the-job component of the program.

Source of official student records: Supervisor, Intern-Trainee Program, Department of Civil Service, Training Section, State Office Building Campus, Building 1, Albany, New York 12239.

Public Administration Training Program

Location: Training Section classrooms, State Office Building Campus, Albany, NY.

Length: 175 hours (1 year); 6 weeklong institutes.

Dates: January 1971 – Present.

Objective: To provide the student with an understanding of the basic principles of public administration with particular reference to their application to State government.

Instruction: Manpower management and utilization; the structure and function of New York State government; the environment of administration; public policy and problem analysis; intergovernmental relations; the legislative, judicial, and executive processes; current concerns in the field of public administration. At the end of the yearlong program, teams of 4-6 students are required to submit substantial research projects which have applied the concepts acquired over the year to a specific problem in the field of public administration. Each student is also required to submit bimonthly reports and to solve workshop problems. Classroom instruction is enhanced by workshops, the availability of a film library and Civil Service video capabilities, textbooks, and a reference library.

Credit recommendation: In the upper division baccalaureate category, 5 semester hours in Political Science, Public Administration, or Social Science (3/75).

NEW YORK STATE DEPARTMENT OF CORRECTIONAL SERVICES

The Department of Correctional Services is responsible for providing effective and efficient correctional programs in New York State. The Department employs approximately 10,000 persons, including nine area parole officers, some 5,500 Correction Officers in work settings at 14 correctional facilities, five correctional camps, and five community-based facilities.

The Training Academy provides entry-level training for new personnel, regular inservice programs for permanent staff, and management and executive development programs. Tuition support programs and liaison activities with higher education institutions are coordinated by the Bureau of Staff Development personnel at the Academy.

Source of official student records: Director of Staff Development, Department of Correctional Services Training Academy, 1134 New Scotland Road, Albany, New York 12208.

Conversational Spanish

Location: Training Academy, Department of Correctional Services, Albany, NY.

Length: 40 hours (8 weeks).

Dates: June 1974 – Present.

Objective: To develop language skills in order to enable correction officers to communicate more effectively with the Hispanic inmate population in correctional facilities.

Instruction: Emphasis is on the acquisition of basic language skills through the practice of listening, speaking, reading, and writing. The course includes simple English/Spanish translation practice, the use of role playing, and an introduction to Hispanic culture in New York State.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Spanish (7/76).

1. Foundations of Physical Activity
2. Self-Defense

Location: Training Academy, Department of Correctional Services, Albany, NY.

Length: 1. 30 hours.
2. 30 hours

Dates: July 1973 – Present.

Objective: To prepare the trainee for the physiological and psychological demands involved in the work of a correction officer.

Instruction: **Course 1:** Development of physical fitness, including strength and stamina, instruction and practice in movement skills, body mechanics, and methods of maintaining and improving fitness. **Course 2:** Theory, skills, and practice in basic blows, throws, escapes, and defenses (emphasis on restraining holds); application of these skills to competitive situations; fundamentals of boxing, wrestling, judo, and karate.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Physical Education (1/76). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Self-Defense

Refer to Foundations of Physical Activity.

NEW YORK STATE DEPARTMENT OF LABOR

The mission of the Department of Labor is to administer the State Labor Law and the rules and regulations set forth in the New York State Industrial Code. In pursuing this mission the Department seeks to attain the following goals: (1) to protect the health and safety of employees, employers, and the public from hazards arising out of employment; (2) to improve the working conditions of men, women, minors, and handicapped employees in industry and trade; (3) to broaden employment opportunities through a statewide employment service; (4) to ensure full payment of wages and employer adherence to minimum wage laws; (5) to provide benefits to workers eligible for unemployment insurance, workmen's compensation, and disability benefits; and (6) to foster peaceful relations between labor and management.

To help ensure employees' personal and career development and to meet the needs of the agency, the Department sponsors various educational and training activities. These include a comprehensive program of inservice training and development involving induction training for new employees and continuing training as needed for all other employees.

Source of official student records: For metropolitan New York City—Assistant Director of Labor Training, Department of Labor, Room 3412, Two World Trade Center, New York, New York 10047; for upstate New York—Assistant Director of Labor Training, Department of Labor, State Office Building Campus, Albany, New York 12201.

Basic Placement Training

Location: Various Department training facilities.

Length: 227 hours; 100 hours lecture, 127 hours supervised on-the-job training.

Dates: January 1970—Present.

Objective: To provide the student with an orientation to the role and function of the Employment Security Placement Trainee and with the knowledge, skills, and attitudes needed to perform that assignment.

Instruction: Introduction to Employment Security and its programs; interviewing techniques; occupational classification and the Dictionary of Occupational Titles; job development; dynamics of the labor market; service to special applicants; introduction to testing; the Unemployment Insurance Law; Equal Employment Opportunity. The lecture-discussion approach is used, along with video taping and role playing, and supervised on-the-job experiences.

Credit recommendation: In the upper division baccalaureate category, 6 semester hours in Education, Psychology, or Sociology (4 lecture, 2 laboratory) or in the graduate degree category, 3 semester hours in an Introductory Vocational Counseling Practicum (10/75). NOTE: The probationary period following the training program must be successfully completed in order to receive credit.

Basic Unemployment Insurance Claims Training

Location: Various Department training facilities.

Length: 352 hours; 90 hours lecture, 262 hours supervised on-the-job training.

Dates: January 1970—Present.

Objective: To provide the student with an orientation to the role and function of the Employment Security Claims Trainee, and with the skills, knowledge, and attitudes necessary to perform that assignment.

Instruction: Interviewing skills; unemployment insurance law; adjudicative skills; using evidence in decision making; effective determination writing; state unemployment insurance policies. The lecture-discussion method is used, along with video taping and role playing and supervised fieldwork.

Credit recommendation: In the upper division baccalaureate category, 7 semester hours, in Education, Psychology, or Sociology (3 lecture, 4 laboratory) or in the graduate degree category, 3 semester hours in an Introductory Vocational Counseling Practicum (10/75). NOTE: The probationary period following the training program must be successfully completed in order to receive credit.

Fundamentals of Supervision I

Location: Various Department training facilities.

Length: 45 hours.

Dates: April 1973 – Present.

Objective: To prepare first level supervisors to perform their supervisory functions more effectively.

Instruction: Introductory workshop and seminar on the techniques and practice of first level supervision in government. Combines basic organizational and behavioral theory with case studies, role-playing exercises, and experiential learning. Coverage of planning, delegation, problem solving, decision making, control methods, job improvement, staff evaluations and training, discipline and leadership. Extensive emphasis on student participation and interaction.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Personnel Administration (10/75).

Fundamentals of Supervision II (Professional Level)

Location: Various Department training facilities.

Length: 217 hours; 67 hours classroom, 150 hours supervised on-the-job training.

Dates: September 1970 – Present.

Objective: To provide newly appointed supervisors at the first professional level with the knowledge and skills necessary to perform their supervisory tasks effectively.

Instruction: Workshop on the practical aspects of supervision at the first professional level in government combined with supervised fieldwork. Supervisory responsibilities; communications and staff responsibilities; techniques of auditing and performance evaluation; staff meetings; using administrative manuals; planning and delegating; analysis and utilization of control results; exercising leadership.

Credit recommendation: In the upper division baccalaureate category, 5 semester hours in Management (3 lecture, 2 laboratory) (10/75). NOTE: The probationary period following the course must be successfully completed in order to receive credit.

Labor Standards Investigator Basic Training

Location: Department training facilities: Albany and New York, NY.

Length: 255 hours; 105 hours classroom, 150 hours supervised on-the-job training.

Dates: January 1969 – Present.

Objective: To provide the student with the knowledge and skills necessary to function as a qualified Labor Standards Investigator.

Instruction: Orientation to organizational missions and structures; State labor laws governing such things as minimum wages, child labor, wage payment, and hours of work; principles and techniques of investigations; preparation of written reports; interpreting written material; analyzing and evaluating evidence. Practical skill training in investigatory techniques, evaluating evidence, and report preparation.

Credit recommendation: In the upper division baccalaureate category, 8 semester hours in Industrial Relations (5 lecture, 3 laboratory) (10/75). NOTE: The probationary period following the training program must be successfully completed in order to receive credit.

NEW YORK STATE DEPARTMENT OF MOTOR VEHICLES

The Department of Motor Vehicles is responsible for the registration of resident motor vehicles, examination and licensing of operators, control and improvement of deficient drivers, inspection and evaluation of the mechanical condition of motor vehicles, collection and analysis of motor vehicle accident information, and management of the compulsory automobile liability insurance program. Each of these functions has a contributory role to the Department's larger responsibility for promoting automotive traffic accident prevention in the State.

To help ensure its employees' personal and career development, and to meet the needs of the agency, the Department sponsors a variety of educational and training activities.

Source of official student records: Department of Motor Vehicles, Training Section, Empire State Plaza, Swan Street Building, Albany, New York 12228.

Concepts of Programming

Location: Programming Department, State Department of Motor Vehicles, Albany, NY.

Length: 100-120 hours; individualized program.

Dates: May 1969—Present.

Objective: To provide the student with the general methods and concepts used in programming.

Instruction: Understanding of computer hardware; flowcharting; job, task, and information management; binary and hexadecimal arithmetic. No actual programming is involved. Programmed instruction is supplemented by a 20-hour audiovisual course. There is one-to-one contact between student and instructor.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Computer Science or Data Processing (2/75).

Programming and Debugging in Assembler Language

Location: Programming Department, State Department of Motor Vehicles, Albany, NY.

Length: 38 hours.

Dates: May 1969—Present.

Objective: To enable the student to write and debug programs in Assembler Language, use utility programs, and develop correct programming concepts.

Instruction: Introduction and review of programming requirements (use of systems macros, catalogs, and libraries); the use of utility programs; advanced debugging techniques; analysis of system dumps. The student writes and debugs a file maintenance program. Lecture and audiovisual programs are supplemented by 350-500 hours of actual programming and on-the-job training.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Computer Science or Data Processing (2/75).

System Control and Assembler Language Coding

Location: Programming Department, State Department of Motor Vehicles, Albany, NY.

Length: 90-100 hours; individualized program.

Dates: June 1969—Present.

Objective: To introduce the student to the use of Job Control Language (JCL) and coding in Assembler Language.

Instruction: Introductory Assembler Language coding (problem definition, flowcharting, coding, debugging, testing, and program documentation); actual programming experience and use of JCL; IBM 360/370 machine coding. Programmed instruction is supplemented by one-to-one contact between the student and instructor.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Computer Science or Data Processing (2/75).

NEW YORK STATE DEPARTMENT OF SOCIAL SERVICES

The Department of Social Services serves New York State citizens who are in need of financial assistance, medical care, or services necessary to help them manage their lives. The Department sets standards for assistance and supervises the activities of the 58 local social services districts which are responsible for the administration of the various service programs.

The Bureau of Manpower Planning and Development within the Department is responsible for developing and implementing education and training programs for State and local staff in order to assist in achieving the mission of the social services system.

Source of official student records: Bureau of Manpower Planning and Development, Department of Social Services, 1450 Western Avenue, Albany, New York 12203.

Administration and Organizational System

Refer to Social Welfare Administration.

The Behavioral Approach to Management Studies

Refer to Management Systems.

Management Systems

(Formerly The Behavioral Approach to Management Studies)

Location: Mohawk Tower, State University of New York at Albany, Albany, NY.

Length: 45 hours (15 weeks).

Dates: February 1975 – Present.

Objective: To provide the student with management theory and practice as they apply to the administration of a complex organization.

Instruction: Human factors in management; leadership; communications; management styles; motivation; organizational development and management of change; policy issues and human resource management; assessing employee performance; employee relations; management by objectives. In addition to standardized textbooks, specialized materials have been developed within the Department to relate course content to specific departmental issues. Students are required to write two papers related to the analysis of departmental problems. Lecture and discussion are used.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Business Administration, Political Science, or Public Administration (4/75).

Managing in Public Social Services

Location: Department of Social Services local offices throughout the 58 districts.

Length: 30 hours (1-6 weeks); length varies according to agency operational needs.

Dates: June 1975 – Present.

Objective: To provide the student with the basic principles, concepts, and techniques for managing reporting persons.

Instruction: The facilitator focuses discussion on the manager's role in directing, interpreting, tutoring, mediating staff conflict, and suggesting proposals for change. Independent study materials are enhanced by small group discussions, filmed case studies, and in-basket exercises for the purpose of applying the basic principles to job-related situations.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Supervisory Management (4/75).

Social Welfare Administration

(Formerly Administration and Organizational System)

Location: Mohawk Tower, State University of New

York at Albany, Albany, NY.

Length: 45 hours (15 weeks).

Dates: May 1975—Present.

Objective: To provide the student with administration and organization theory as applied to processes used by complex public organizations.

Instruction: The administrative process; external relations; administrative environment; financial management; personnel administration; organization and methods; executive dynamics; executive leadership. In addition to standardized textbooks, materials have been developed within the Department to relate course content to specific departmental issues. Each student is required to write a term paper focusing on the analysis of departmental problems. Lecture and discussion are used.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Political Science or Public Administration (4/75).

NEW YORK STATE DEPARTMENT OF STATE

The Department of State is the general recording agency of New York State. Its responsibilities include being the depository of the original State land records, preparing election material for county boards of election, and filing certificates of incorporation (other than those of banking, insurance, and educational institutions). Within the Department, the Division of Fire Prevention and Control assists local communities in utilizing the resources of State government for their own benefit and in coordinating the activities of State agencies to provide more effective services to local governments.

The courses listed below are offered by the Division for professional and volunteer fire personnel throughout the State. The courses are conducted annually at the State Academy of Fire Science in Montour Falls at various times throughout the year. The Division also conducts the New York State Fire Training Program, which consists of 14 courses in standardized fire-fighting skills offered at regional locations in the State.

Source of official student records: Department of State, Division of Fire Prevention and Control, 162 Washington Avenue, Albany, New York 12231.

Arson Investigation Course

Location: Academy of Fire Science, Montour Falls, NY.

Length: 27 hours (4-1/2 days); residential.

Dates: November 1974 – Present.

Objective: To provide the student with the necessary skills and techniques to conduct post-fire investigations for the purpose of determining fire causes.

Instruction: The history, development, and philosophy of fire investigation and detection; gathering of evidence and development of technical reports; fundamentals of arson investigation; detecting criminal evidence; criminal procedures related to various local and State statutes. (Prerequisites: "Essentials of Firemanship" and "Fire Investigation Course" of the New York State Fire Training Program).

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Criminal Justice, Fire Protection Technology, or Fire Science (4/75).

Fire Science Training Techniques

Location: Academy of Fire Science, Montour Falls, NY.

Length: 90 hours (3 years); residential, 1 week per year.

Dates: January 1972 – Present.

Objective: To provide comprehensive training skills and evaluation techniques for experienced fire officers.

Instruction: Principles, structure, and practices of training necessary for fire officers to facilitate the learning process of fire service personnel. Transactional analysis; the use of training aids and resource materials; desirable characteristics in an instructor; behavior as it affects learning; development, coordination, and implementation of a fire science training program. Students participate in a group evaluation session in which each student is given a critique and then plays a role in the evaluation process. Lectures and workshops stress class participation. During this three-year program the students practice teach (approximately 300 hours) in their local districts under the supervision of field representatives.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Fire Protection Technology or Fire Science (4/75).

Introduction to Fire Department Administration

(Formerly Fire Department Administration)

Location: Academy of Fire Science, Montour Falls, NY.

Length: **Version 1:** 44 hours (4-1/2 days); residential.
Version 2: 54 hours (4 months); residential for one weekend during each of four consecutive months.

Dates: May 1975 – Present.

Objective: To improve the administrative capabilities of fire department officers by introducing the basic concepts of supervision and providing information, background, and resources pertaining to administration.

Instruction: The planning, organizing, leadership, and evaluating functions of management. Management definitions and functions; fire department objectives; standards for fire protection; planning problems, phases, and guidelines; fire facilities planning; budgeting; unions and labor relations; fire department organizations; departmental structure; organizing and staffing the fire department; scope of leadership; personnel management; municipal communications; legal aspects of fire service; public relations and fire prevention; investigation practices; evaluation standards and techniques; fire service records and reports. Academy faculty and selected guest specialists use prepared lesson plans as the basis for class lectures and for student discussion, analysis, and review of the material presented. (Prerequisites: "Essentials of Firemanship," "Fire Department Management and Operations," and "Officer Training Course" of the New York State Fire Training Program.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Fire Protection Technology or Fire Science (3/77).

Introduction to Fire Inspection

Location: Academy of Fire Science, Montour Falls, NY.

Length: 28 hours (1 week); residential.

Dates: February 1974 – Present.

Objective: To develop the inspection capabilities of municipal and fire service personnel.

Instruction: The procedures for conducting detailed and exacting inspections of all types of structures for the purpose of reducing fire losses and preventing fires. Recognition of fire hazards; development and implementation of an inspection program; review of State and national codes pertaining to fire prevention. The students are required to attend lectures and field trips to local industries and municipal buildings. After field trips, the students complete inspection reports which are reviewed and criticized by the instructor. (Prerequisites: "Essentials of Firemanship" and "Fire Inspection Practices" of the New York State Fire Training Program.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Fire Protection Technology or Fire Science (4/75).

Introduction to Industrial Fire Protection

Location: Academy of Fire Science, Montour Falls, NY.

Length: 37-1/2 hours (4-1/2 days); residential.

Dates: March 1977 – Present.

Objective: To improve the ability of industrial fire brigade personnel to plan and administer industrial fire prevention programs through the identification of hazards, planning for emergencies, and orientation of all personnel to the proper reactions to emergencies.

Instruction: The course is based on the National Fire Prevention Codes and on the Factory Mutual Handbook of Loss Prevention. Organizing for fire safety; nature and theory of fire; fuel loads; ordinary combustibles; flammable liquids; compressed gases; sources of ignition; special hazards; explosives, dusts, and radioactive materials; classes of fires and types of extinguishers; fire separations; fire detection and alarm equipment; water supply; automatic sprinklers; special extinguishing systems; pre-fire planning; fire attack; restoring normal operations. (Prerequisites: "Fire Inspection Practices" of the New York State Fire Training Program, or equivalent training in industrial safety and emergency preparedness.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Fire Prevention Technology or Fire Science (3/77).

NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES — BUREAU FOR MUNICIPAL POLICE

The New York State Executive Department's Division of Criminal Justice Services comprises three organizations, one of which is the Bureau for Municipal Police. Working with the guidance of the Municipal Police Training Council (MPTC) in matters of policy, the Bureau is responsible for administering training for all local law enforcement officers outside New York City.

Courses are conducted on a regional basis in order to foster interdepartmental cooperation and enable new officers to understand the interrelationships within the criminal justice system. The Bureau's mandated training programs are a basic course for entry-level police officers and a supervisory course for first-line supervisors. The Bureau also conducts courses which are not mandated, such as intermediate and advanced inservice courses, latent fingerprint, police photography, and police traffic services.

Source of official student records: Deputy Commissioner, Division of Criminal Justice Services, Executive Park Tower, Stuyvesant Plaza, Albany, New York 12203.

Police Instructor Development Seminar

Location: Locations throughout New York State.

Length: 70 hours (2 weeks).

Dates: October 1976—Present.

Objective: To develop the pedagogical skills of the police officer who has been selected as an instructor.

Instruction: Role of the instructor; defining training needs; writing instructional objectives; oral communication; psychology of learning; audiovisual aids; instructional techniques; lesson plans; evaluation and test construction; instructor-trainee interaction; record keeping. The course consists of forty hours of lectures and discussion and thirty hours of workshops, practical exercises, and oral presentations which are video-taped and critiqued.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Education or as an elective in Corrections Administration, Criminal Justice, or Police Science (5/77).

NEW YORK STATE DIVISION OF STATE POLICE

The Division of State Police is responsible for rendering police services to all the people of New York State. There are nearly 3,500 men and women working throughout nine Troop areas. With the exception of the Thruway Troop, each Troop is specifically responsible for policing approximately eight to ten counties. In 1935, a Detective force was created to be responsible for the investigation of all major crimes; this unit is now known as the Bureau of Criminal Investigation.

Training programs date back to the inception of the Division in 1917. In May of 1970, the State Police Academy opened on the State Campus in Albany. This was the first time that the Division had a facility of its own devoted exclusively to its training requirements. In addition to the Basic Recruit Program, the academy conducts inservice courses for State Police officers and representatives from other law enforcement agencies. The aim is to enable officers to keep abreast of the ever-changing field of law enforcement while simultaneously upgrading their skills in such areas as police administration and criminal investigation.

Source of official student records: Director of Training, State Police Academy, State Campus, Albany, New York 12226.

BASIC RECRUIT PROGRAM

The courses listed below constitute the academic component of the Basic Recruit Program conducted at the Police Academy. This is an intensive 18-week residential program attended by all newly appointed troopers of the State Police. The total program as presently constituted has been offered since October 1971, although individual courses have been offered with substantially the same content for a longer period of time; this is noted for the specific courses.

1. Accident Investigation
2. Vehicle and Traffic Law I
3. Vehicle and Traffic Law II

Length: 100 hours.

Dates: September 1961—Present.

Objective: To provide the student with knowledge of the New York State Traffic Laws, Federal standards, codes, and laws, and terminology contained in the Vehicle and Traffic Law.

Instruction: The procedures and standards of proof required in related judicial proceedings (rules of the road, vehicle and traffic accusatory instruments and bills of particulars); treatment of latest methods of accident investigation (identification of primary and secondary causes of accidents). A laboratory experience is provided with strong emphasis on Driving While Intoxicated Enforcement.

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Vehicle and Traffic Law (3/74). NOTE: Courses 1, 2 and 3 must all be completed in order to receive credit.

Community Relations for Police

Length: 40 hours.

Dates: June 1964—Present.

Objective: To provide the student with a multidimensional survey of police/community relations.

Instruction: The role of the police in community relations; the psychological and sociological aspects of human relations; the nature of prejudice and discrimination in police work; the development of the police image and a recognition of the importance of communications with the public; civil disobedience; police corruption and police professionalism.

Credit recommendation: In the lower division

baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in The Police and The Community (3/74).

Consolidated Laws and Procedures

Length: **Version 1:** 36 hours.
Version 2: 39 hours.

Dates: **Version 1:** June 1964 – October 1974.
Version 2: November 1974 – Present.

Objective: To provide an overview of the Consolidated Laws and Procedures of New York State and selected Federal statutes in which there is a concurrent enforcement responsibility.

Instruction: Bail; family court and offenses against the court; conservation law; State and Federal probation; pardon and parole; Federal enforcement agencies; the District Attorney, Public Defender, and County Court Judge; Supreme Court decisions.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Consolidated Laws and Procedures (3/74).

Criminal Investigations

Length: **Version 1:** 60 hours.
Version 2: 64 hours.

Dates: **Version 1:** June 1964 – October 1974.
Version 2: November 1974 – Present.

Objective: To provide knowledge and skills necessary to conduct a sound police investigation.

Instruction: General principles; preliminary investigation; collection and preservation of information; sources of information. In addition to general investigative techniques, emphasis is placed on those types of criminal activities which require specialized methods of investigation. A laboratory experience is provided through the Practical Case Exercise in which investigative techniques are applied directly to situations that actually occur in field assignments.

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Criminal Justice (3/74).

Criminal Law

Length: 60 hours.

Dates: September 1961 – Present.

Objective: To provide an introduction to the New York State Penal Law.

Instruction: The New York State Penal Law (its purposes and those definitions applicable to enforcement considerations); the elements of various offenses (anticipatory offenses, theft, fraud, damage and intrusion onto property, and offenses against the person and public order); the legal basis for proscribing conduct; the justification for the lawful use of physical force.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Criminal Law (3/74).

Criminal Procedure Law

Length: 60 hours.

Dates: September 1961 – Present.

Objective: To provide an introduction to Criminal Procedure Law.

Instruction: Working knowledge of procedures and standards of proof required for preliminary judicial action in the lower or local court (geographical jurisdiction of offenses, scope of prosecution, and rules of evidence); procedures related to arrest for an offense from the time of arrest through sentencing and probation procedures (laws of arrest, proceedings from arraignment to plea, and search and seizure).

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Criminal Procedure Law (3/74).

Emergency Services School

Length: **Version 1:** 40 hours.
Version 2: 62 hours.

Dates: **Version 1:** June 1964 – October 1974.
Version 2: November 1974 – Present.

Objective: To provide knowledge and skills necessary for the student to effectively handle emergency situations.

Instruction: Knowledge and skills necessary to handle situations requiring immediate action to safeguard life and property or prevent further hazards to either. Emergencies involving public utilities, dangerous materials, extrications, and search and recovery operations. **Version 2:** Approximately two-thirds of the course is devoted to advanced First Aid and Crash Injury Management.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Criminal Justice (3/74).

Introduction to Law Enforcement and Government

Length: 40 hours.

Dates: October 1971 – Present.

Objective: To provide an understanding of the organization and functions of Federal, State, and local governments and an introduction to Federal and State Constitutional Law.

Instruction: Examination of the organization and functions of government at the Federal, State, and local levels, with emphasis on those governmental operations which directly affect the field of law enforcement; basic introduction to Federal and State Constitutional Law. The dimensions, operations, and alternatives presented by the criminal justice system (the police function, the judicial function, and the correctional process).

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Introduction to Law Enforcement or in the upper Division baccalaureate category, credit on the basis of institutional examination (3/74).

Vehicle and Traffic Law I

Refer to Accident Investigation.

Vehicle and Traffic Law II

Refer to Accident Investigation.

INSERVICE COURSES

Basic Supervisory Administration

1. **Inservice Training for Noncommissioned Officers**
2. **Noncommissioned Officers Course**

Location: State Police Academy, State Campus, Albany, NY.

Length: 1. 32 hours (1 week); residential.
2. 64 hours (2 weeks); residential.

Dates: July 1974 – Present.

Objective: To acquaint the student with management concepts and principles of leadership in police administration.

Instruction: First-line supervisory training. Administrative procedures; supervision; leadership; grievance and disciplinary problems; techniques of improving morale and motivation.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Police Management and Supervision (2/75).

Criminal Investigations II

Location: State Police Academy, State Campus, Albany, NY.

Length: 64 hours (2 weeks); residential.

Dates: January 1964 – Present.

Objective: To introduce the new criminal investigator to the methods and techniques employed in the investigation of crimes and to other appropriate law enforcement methods.

Instruction: An advanced course in criminal investigation for the new investigator. Review of the basic principles of investigation; advanced instruction in the investigative techniques relating to serious crimes (homicide, arson, sex crimes, and gambling).

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Criminal Justice. NOTE: For students from other law enforcement agencies who attend only the second week of the course, 1 semester hour of credit is recommended (2/75).

Inservice Training for Noncommissioned Officers

Refer to Basic Supervisory Administration.

Noncommissioned Officers Course

Refer to Basic Supervisory Administration.

NEW YORK STATE OFFICE OF DRUG ABUSE SERVICES

The Office of Drug Abuse Services (ODAS) was originally established in 1966 as the Narcotic Addiction Control Commission and was later known as the Drug Abuse Control Commission. The office operates as an autonomous division within the New York State Department of Mental Hygiene. Two major responsibilities of ODAS are the treatment and rehabilitation of narcotic addicts and other drug-dependent persons and the prevention of dysfunctional drug abuse.

The Office develops inservice training programs to help employees meet the responsibilities of ODAS. Staff development opportunities, both those that are job-oriented and those directed toward personal growth, are available to all employees and are offered at a variety of locations throughout the State.

Source of official student records: Director, Manpower Management, Office of Drug Abuse Services, P.O. Box 8200, Albany, New York 12203.

Advanced Seminar in Personality Dynamics and Treatment Techniques with Drug Abusers

Location: Queensboro Community Rehabilitation Center, 47-04 Van Dam Street, Long Island City, NY.

Length: 45 hours (30 weeks).

Dates: September 1974 – June 1976.

Objective: To enhance the student's knowledge of personality dynamics and interpersonal skills by building upon the foundations of basic theory and knowledge in personality dynamics, psychopathology, and treatment techniques.

Instruction: An intensive integration of theory and skills in the treatment process. Interview techniques; transference and countertransference phenomena; personality structure; ego pathology in drug abuse; dynamics of drug abuse. Course format includes group discussion of case material presented by students, role playing, selected readings, and interview tutorials with the seminar leader. (Prerequisite: Seminar in Personality Development, Psychopathology, and Treatment Techniques.)

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Counseling, Psychology, or Social Work (3/75).

Black and Puerto Rican Americans and American Social Institutions

Location: Ridge Hill Rehabilitation Center, Yonkers, NY.

Length: 36 hours (12 weeks).

Dates: May 1975 – June 1976.

Objective: To provide the student with information on some selected factors relating to black and Puerto Rican life experience that may relate to the lives and behavior of currently institutionalized residents.

Instruction: Examination of issues which contribute to the disproportionately high rates of unemployment, poverty, family disruption, and involvement in crimes and delinquency among blacks and Puerto Ricans. Instructional format is primarily lecture and discussion.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Social Science (7/75).

Booze: Mankind's Oldest Problem Drug (AK 107)

Location: Arthur Kill Community Rehabilitation Center, 2911 Arthur Kill Road, Staten Island, NY.

Length: 30 hours (15 weeks).

Dates: October 1973 – June 1976.

Objective: To provide the student with information about alcohol viewed as a drug and alcoholism as an addictive disorder.

Instruction: Alcohol as a substance (its pharmacology, history, culture, psychology, scope, and species); alcoholism as an addictive disorder; its relationship to other addictive disorders.

Credit recommendation: In the graduate degree category, 3 semester hours in Counseling, Psychology, Social Work, or Sociology (7/75).

Drugs: Their Use and Abuse

Location: Bushwick Rehabilitation Center, 41-49 Howard Avenue, Brooklyn, NY.

Length: 45 hours (15 weeks).

Dates: September 1975 – June 1976.

Objective: To provide the student with an overview of the psychological, sociological, physiological, and legal aspects of drug abuse, and an examination of the current major modalities of treatment.

Instruction: An examination and review of the major substances of abuse (including hallucinogens, narcotics, and alcohol). Through use of lectures, guest experts, films, and field trips, the student is exposed to the many ramifications of current drug use and abuse and is given a critical evaluation of current major treatment modalities. Life style alternatives to drug abuse and addiction are explored.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Behavioral Sciences, Community Mental Health, Counseling, Education, Psychology, or Sociology (2/76).

Experiential Seminar in Behavior Therapy Techniques

Location: Otisville Rehabilitation Center, Otisville, NY.

Length: 30 hours (1 week).

Dates: April 1974 – June 1976.

Objective: To have students learn and experience principles and techniques of behavior therapy.

Instruction: Orientation to and history of behavior therapy; techniques of relaxation, desensitization, self-image training, behavior analysis, behavior control, assertive training, and rational thinking. Behavior therapy techniques are explored through lectures, self-application, role playing, and group discussion.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Applied Behavioral Sciences (3/75).

Introduction to Behavioral Dynamics

Location: Ridge Hill Rehabilitation Center, Yonkers, NY.

Length: 36 hours (12 weeks).

Dates: May 1975 – June 1976.

Objective: To introduce the student to the psychodynamic and learning theory models of personality development.

Instruction: Psychodynamic and learning theory models are used to illustrate divergent theories of psychopathology and to help explain such clinical phenomena as depression and suicide. Personality assessment tools, psychological testing methods, and various treatment approaches are examined. Films, lectures, selected readings, group discussions, and case studies are used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Psychology (7/75).

Introduction to Behavioral Techniques (AK 102)

Location: Arthur Kill Community Rehabilitation Center, 2911 Arthur Kill Road, Staten Island, NY.

Length: 60 hours (15 weeks).

Dates: May 1974 – June 1976.

Objective: To improve the student's interpersonal relationships by providing a better understanding of counseling techniques and specific behavioral techniques which are useful with both individuals and groups.

Instruction: The course is designed to teach basic group skills. A minimum of behavioral and learning theory concepts are combined with a maximum of technique and practical application. The emphasis is on the use of group skills with drug addicts in a confined setting.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Applied Behavioral Sciences (3/75).

Introduction to Communication Skills (AK 101)

Location: Arthur Kill Community Rehabilitation Center, 2911 Arthur Kill Road, Staten Island, NY.

Length: 15 hours (15 weeks).

Dates: June 1974 – June 1976.

Objective: To solve problems in staff communications and to teach basic communication skills.

Instruction: An approach to communications from a problem-solving position. Definition of communications as any transaction between human beings; consideration of the most common problems in communications within organizations. Practical exercises are used to enhance communication skills.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Applied Behavioral Sciences or Communications (3/75).

Introduction to Group Counseling

Location: Ridge Hill Rehabilitation Center, Yonkers, NY.

Length: 48 hours (14 weeks); includes 6 hours of laboratory exercises.

Dates: November 1974 – June 1976.

Objective: To familiarize the student with knowledge and skills of group counseling dynamics and techniques so that he/she can function as an aide to the group leader in a resident treatment group.

Instruction: An overview of group counseling dynamics and techniques for use with institutionalized substance abusers. Problems and issues of group counseling are treated through the use of video-tape presentations, one-way mirror observations, role-play exercises, and related exercises. Lectures, selected readings, and group experiences are also used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Psychology, Social Science, or Social Work (7/75).

Introduction to Techniques of Behavior Modification (AK 109)

Location: Arthur Kill Rehabilitation Center, 2911 Arthur Kill Road, Staten Island, NY.

Length: 40 hours (5 weeks).

Dates: November 1975 – June 1976.

Objective: To provide the student with an understanding of some of the basic theories and techniques in behavior modification and how they can be used in treatment settings dealing with substance abusers.

Instruction: Introduction to some basic behavioral modification techniques: relaxation, desensitization, self-image development, self-assertion, and behavior analysis. Presented in an experiential framework of demonstration and participation, as well as lecture.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Behavioral Sciences (2/76).

Orientation to Substance Abuse: Its Nature and Treatment (AK 108)

Location: Arthur Kill Community Rehabilitation Center, 2911 Arthur Kill Road, Staten Island, NY.

Length: 30 hours (20 weeks).

Dates: September 1975 – June 1976.

Objective: To orient the student to the nature of abused substances and the treatment modalities for drug and alcohol abuse.

Instruction: Survey of the nature and function of abused substances, particularly drugs and alcohol; consideration of the pharmacology of abused substances, the types of abusers, related cultural factors, and how these may influence treatment and referral.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category (introductory), 3 semester hours in Counseling, Psychology, Social Work, or Sociology (7/75).

Seminar in Group Psychotherapy

Location: Queensboro Community Rehabilitation Center, 47-04 Van Dam Street, Long Island City, NY.

Length: 45 hours (30 weeks).

Dates: January 1974 – June 1976.

Objective: To enhance the student's knowledge, attitudes, and skills in the use of group therapy techniques.

Instruction: Analysis of tape-recorded sessions which examine processes of group formation, group dynamics, intervention techniques, special problem clients, problems of transference and countertransference. As part of the seminar, staff members with different levels of experience work together as coleaders of residential and aftercare groups. Relevant readings are assigned and individual tutorials are held to facilitate student presentation of taped materials.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category (introductory), 3 semester hours in Counseling, Psychology, or Social Work (3/75).

Seminar in Milieu Treatment Approaches

Location: Queensboro Community Rehabilitation Center, 47-04 Van Dam Street, Long Island City, NY.

Length: 45 hours (30 weeks).

Dates: January 1974 – June 1976.

Objective: To prepare the worker to assume an appropriate role as a member of a treatment team by laying a foundation in mental hygiene concepts and practices.

Instruction: Basic introduction to personality development, psychopathology, and treatment techniques. The focus of the course is on the self-image of the correction officer and his knowledge, attitudes, and skills in communicating with clients and colleagues. Critical incidents are presented by members, and role playing is used to practice new skills in appropriate interventions.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Applied Behavioral Sciences (3/75).

Seminar in Personality Development, Psychopathology, and Treatment Techniques

Location: Queensboro Community Rehabilitation Center, 47-04 Van Dam Street, Long Island City, NY.

Length: 45 hours (30 weeks).

Dates: November 1973 – June 1976.

Objective: To provide basic theoretical knowledge and skills practice in the areas of personality assessment and treatment techniques.

Instruction: Theoretical and practical experience in differential diagnosis, treatment planning, and the delivery of services via the staff/client relationship; theoretical models for diagnosis and treatment of personality disorders; appropriate utilization of rehabilitation center facilities and services for clients within the community. Instruction includes group discussion, written and taped material presented by the participants, skills practice and readings in personality dynamics and treatment of drug abusers.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Counseling, Psychology, or Social Work (3/75).

Seminar in Psychopathology and Group Treatment Modalities (AK 104)

Location: Arthur Kill Community Rehabilitation Center, 2911 Arthur Kill Road, Staten Island, NY.

Length: 46 hours (23 weeks).

Dates: September 1974 – June 1976.

Objective: To review basic concepts in psychodynamics, psychopathology, and drug abuse; to enable participants to demonstrate knowledge of the principal group therapy approaches and make judgments about their usefulness; to teach the application of basic understanding of human behavior in clinical settings.

Instruction: Basic principles of human development according to Freud, Erikson, and Piaget; classic concepts in pathology (neurosis, psychosis, and character disorder); basic approaches to group therapy (analytical, behavioral, Rogerian, transactional, sensitivity, self-actualization, and reality therapy).

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category (introductory), 3 semester hours in Counseling, Psychology, or Social Work (3/75).

NEW YORK TELEPHONE COMPANY

The New York Telephone Company, which employs over 80,000 persons throughout the State, is part of the nationwide Bell System. The company provides communication services to over six million customers in New York State and Greenwich, Connecticut. Services range from basic home telephone services to complete business communication systems. Telephone facilities transmit voice, television, and other pictures, as well as coded symbols and data between people, computers, and business machines.

The company has developed courses in many different areas to provide employees with an opportunity to receive appropriate training at various intervals in their careers. Courses focus on developing the technical, administrative, and managerial skills that are most relevant to the job being performed. There are also courses in the area of personal development. While the courses reviewed vary in length, in all cases the participating employees are released from other job responsibilities to attend.

Source of official student records: The students' district office within the company.

Accounting for Engineers (4031)

Location: Corporate Learning Center Engineering School, Hotel Thayer, West Point, NY.

Length: 32 hours (5 days); residential.

Dates: July 1972 – Present.

Objective: To provide knowledge of basic accounting principles, with specific reference to engineering.

Instruction: Business and the need for accounting; double-entry bookkeeping; balance sheets; income statements and other financial reports; depreciation; accounting methods and procedures; expenditure control; division of revenue.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Basic Accounting Principles for Engineers (9/75).

Accounting Manager's Workshop (1007)

Location: Overlook Lodge, Bear Mountain, NY; Holiday Inn, Orangeburg, NY.

Length: 32 hours (4-1/2 days); residential.

Dates: December 1970 – Present.

Objective: To increase the second-line manager's motivation, leadership skills, and acceptance of his/her basic accountability for meeting company and customer needs.

Instruction: Motivation; leadership; listening; problem solving; Linking Pin Theory; McGregor's Theory X & Y; appraisal techniques; time management; goals and operant management (positive reinforcement). Methodology consists of lecturette, films, and video role playing.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Management (11/74).

Advanced Data Training (A0000)

Location: 10 Columbus Circle, New York, NY.

Length: 90 hours (2 weeks).

Dates: June 1971 – Present.

Objective: To equip communications consultants, account consultants, and sales managers with the knowledge necessary to recognize and satisfy business needs in the data market by providing efficient and effective communications.

Instruction: Fundamentals of computer systems; input-output systems and their operation; information storage and retrieval; computer programming; computer concepts, time sharing, data transmission, and data switching; computer language from simple binary numbers to twelve-level codes.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Computer Fundamentals (3/74).

A.T.&T. Manager Training Course (3002)

Location: Commerical Management Learning Center, 1790 Broadway, New York, NY.

Length: 105 hours (15 days).

Dates: January 1970—Present.

Objective: To equip the new middle-level manager with the technical, administrative, and managerial skills necessary for effective middle-level management of a business office.

Instruction: Corporate finance; accounting methodology; labor relations; management by objectives; motivation; planning; decision making; performance appraisal; credit and collections. Application of theory is based on current thinking of behavioral psychologists. Methodology includes lectures, self-paced programmed instruction, group discussions, projects, role playing, and films.

Credit recommendation: In the upper division baccalaureate category, 4 semester hours in Management Practices or in the graduate degree category, 3 semester hours in Management Practices (11/74).

1. Basic Installation—Suburban (102)
2. Basic Installation—Urban (101)
3. Station Repair (103)

Location:
1. Garden City, Jamaica, and New York, NY.
2. 461 Eighth Avenue, New York, NY.
3. Garden City, Jamaica, and New York, NY.

Length:
1. 56-120 hours; individualized program.
2. 56-120 hours; individualized program.
3. 16-24 hours; individualized program.

Dates: January 1973—Present.

Objective: Courses 1 and 3: To provide the student with the skills required to install and repair basic suburban telephone station service. **Courses 2 and 3:** To provide the student with the skills required to install and repair basic urban telephone station service.

Instruction: Courses 1 and 3: Comprehensive coverage of work functions to perform all phases of primary telephone station installation, trouble analysis, and repair work. Programmed instruction (24 modules), including audio-visual material. **Courses 2 and 3:** Comprehensive coverage of work functions to perform all phases of primary telephone installation, trouble analysis, and repair work. Programmed instruction (28 modules), including audio-visual material.

Credit recommendation: Courses 1 and 3: In the lower division baccalaureate/associate degree category, 2 semester hours in Electrical Construction and Maintenance (8/75). **Courses 2 and 3:** In the lower division baccalaureate/associate degree category, 2 semester hours in Electrical Construction and Maintenance (8/75). NOTE: In order to receive credit, Course 3 must be completed with either Course 1 or Course 2.

Basic Installation—Urban (101)

Refer to Basic Installation—Suburban (102).

Business Office Supervisor (3003)

Location: Commercial Management Training Center, 1790 Broadway, New York, NY.

Length: 76 hours (3 weeks); 64 hours of supervised on-the-job experience.

Dates: June 1968—Present.

Objective: To teach business office supervisors methods and techniques of supervision and policies, objectives, and techniques relating to personnel.

Instruction: Fundamentals of supervision, human relations, and managerial practice. Motivation; performance appraisal; policies; planning; control; union-management relations; customer relations; work measurement; other management techniques. Classroom experience is supplemented by workshops, case studies, and other experience-based learning.

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Management or Personnel (3/74).

Career Development Workshop

Location: Mohonk Mountain House, New Paltz, NY.

Length: 40 hours (5 days); residential.

Dates: January 1974—July 1976.

Objective: To enable management women to explore career alternatives and to build the personal skills necessary to enhance career development by establishing self-development objectives.

Instruction: Acquaints participants with the general plan and purpose of the career development program; explores the organizational realities confronting women competing for middle and upper management positions; provides opportunities to increase self-awareness and skills as group members and leaders; helps conferees build personal development programs. Individual work combined with highly participative group learning experiences. About one third of the course is lecture/discussion.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Social Science (Individual Development) (11/74).

Commercial Instructor Training Course (3004)

Location: Commercial Management Learning Center, 1790 Broadway, New York, NY.

Length: 105 hours (3 weeks); individualized program.

Dates: January 1972 – Present.

Objective: To enable new instructors to conduct effective and efficient training by providing them with skills in presenting material, a teaching style, and a developmental questioning technique for responding to student questions and evaluating students.

Instruction: Treatment of learner-centered instruction. Behavioral objectives; a behavior development technique; a teaching technique; teaching demonstrations and critiques; student verbal and nonverbal communications; a mode of handling student mistakes; conducting evaluation discussions; handling technical errors. Emphasis is on the technical, rather than the theoretical, aspects of the teaching process. Approximately 60 percent of the course is programmed instruction and in-class practice teaching.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Education (9/75). NOTE: While this credit recommendation applies only to the course as offered by the New York Telephone Company, the course is taught with substantially the same content and procedures in other Bell System Operating Companies throughout the United States.

Crossbar Tandem (62)

Location: Garden City, Menands, New York, and Queens, NY.

Length: 480 hours (12 weeks).

Dates: January 1975 – Present.

Objective: To provide the student with the ability to analyze, troubleshoot, and maintain electromechanical and associated circuitry.

Instruction: General description, features, basic components, and equipment aspects of electromechanical relay switching systems; trouble recognition and repair techniques; the use and maintenance of automated diagnostic recording equipment. A detailed study is made of block diagrams and schematics of typical switching systems. (Prerequisite: knowledge of basic electricity and circuit drawings.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 10 semester hours in Industrial (Electromechanical) Technology (6 lecture, 4 laboratory) (8/75).

Engineering Economy Principles (4067)

Location: Corporate Learning Center Engineering School, Hotel Thayer, West Point, NY.

Length: 45 hours (4 days); residential.

Dates: July 1973 – Present.

Objective: To provide management personnel with an understanding of engineering cost study concepts and techniques and why such studies are essential to the financial structure of the Telephone Company.

Instruction: Capital-revenue-expense relationships; time value of money; annual charge rates; engineering economy study; profitability study; own versus lease study; retiring versus existing plant; division of revenue. Lecture-oriented, with several hours of problem-solving sessions.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in General and Cost Accounting Applications in Engineering (3/74).

Engineering Economy Techniques (4007)

Location: Corporate Learning Center Engineering School, Hotel Thayer, West Point, NY.

Length: 55 hours (5 days); residential.

Dates: January 1970 – Present.

Objective: To equip management personnel actively engaged in the preparation or review of cost studies with the ability to apply the proper engineering cost study techniques to given study situations.

Instruction: Capital-revenue-expense relationships; time value of money; annual charge rates; engineering economy study; team workshop project; profitability study; own versus lease study; division of revenue. Class time is equally divided between lecture periods and problem-solving sessions.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in General and Cost Accounting Applications in Engineering (3/74).

English as a Second Language

Location: Experimental Training Laboratory, 500 Eighth Avenue, New York, NY.

Length: 180 hours (12 weeks).

Dates: October 1971 – Present.

Objective: To increase the student's proficiency in all skills of English (speaking, understanding, reading, and writing).

Instruction: Major structures of English at the intermediate level. Auditory comprehension; speaking; reading; writing. The basic methodology used is audio-lingual, but modifications and improvements from more recent methodologies, such as the Silent Way, are included. Materials are standard texts (Praninskas' *Rapid Review of English Grammar*, Lorenz' *Patterns of American English*) and visual aids.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in English as a Second Language (11/74).

First Level Workshop (5036)

Location: Overlook Lodge, Bear Mountain, NY.

Length: 40 hours (5 days); residential.

Dates: August 1974 – Present.

Objective: To increase the first-level manager's self-awareness; to improve leadership skills.

Instruction: Roles of management. Planning; organization; leading and controlling; leadership functions; communications; problem analysis; decision making; subordinate development. Lectures, role playing, self-assessment instruments, facilitating, films and other audio-visual materials, and individual and sub-group activities are all incorporated in the course.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Management (11/74).

Force Management

Version 1: Force Management (9002)

Version 2: Force Management (ACD 9046)

Version 3: Force Management (TSPS 9044)

Location: Operator Services Management Training Center, 1790 Broadway, New York, NY.

Length: **Version 1:** 49 hours (7 days).
Version 2: 35 hours (5 days).
Version 3: 35 hours (5 days).

Dates: **Version 1:** January 1964 – March 1975.
Version 2: March 1975 – Present.
Version 3: March 1975 – Present.

Objective: To teach office managers technical skills necessary to function in the area of force administration.

Instruction: All phases of force management cost control with emphasis on those functions that directly affect cost control and service rendered in the Operator Services Central Office; development of statistical techniques and managerial considerations in formulating policies regarding workload forecasting and personnel planning; peg count procedures; long- and short-range force programs; development of efficiency measurements.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Managerial Planning, Operations Management, or Work Force Measurement (3/74).

Initial Management Training for Plant Foreman (8012)

Location: Corporate Learning Center, White Plains Hotel, White Plains, NY.

Length: 80 hours (2 weeks); residential.

Dates: January 1971 – Present.

Objective: To teach foremen the basic concepts of the first-level supervisor's job.

Instruction: Fundamentals and applications of management practice. Planning; policy control; management by objectives; human behavior; salary administration and other personnel practices; cost control; union-management relations; appraisal. Lecture, discussion, case studies, role-playing exercises, and small group projects are used.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Management Process (3/74).

Instructional Technology Workshop (5034)

Location: Experimental Training Laboratory, 500 Eighth Avenue, New York, NY.

Length: 39 hours (5-7 days); programmed instruction.

Dates: January 1973 – Present.

Objective: To provide new course developers with the necessary technology and processes to research, develop, implement, and validate training curricula.

Instruction: Overview of Instructional Technology. Objectives and goal analysis; criterion testing; training requirements; task analysis; instructional media and method validation. Emphasis is on the technical, rather than the theoretical, aspects of the teaching process. Instructor-led programmed instruction with subgroup and individual exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Education (9/75). NOTE: While this credit recommendation applies only to the course as offered by the New York Telephone Company, the course is taught with substantially the same content and procedures in other Bell System Operating Companies throughout the United States.

Key Telephone Systems—Repair (141)

Location: Garden City, Jamaica, and New York, NY.

Length: 45-120 hours; individualized program.

Dates: May 1974—Present.

Objective: To provide the student with the skills required to install and repair key telephone station systems.

Instruction: Key systems trouble analysis; circuit reading; testing procedures. Emphasis on component symbols, schematics, and circuit tracing. Students work on actual key equipment and analyze and isolate programmed troubles. Programmed instruction (10 modules).

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Electrical Construction and Maintenance (8/75).

Language Skills

Location: Experimental Training Laboratory, 500 Eighth Avenue, New York, NY.

Length: 180 hours (9-12 weeks); individualized program.

Dates: January 1968—Present.

Objective: To provide remediation for students in elementary English language skills.

Instruction: Comprehension and vocabulary development. Indentification and use of parts of speech and standard English grammatical usage; standard English syntactical variations; decoding, pronunciation, and use of over 5,000 frequently used words; acquisition of meaning from complex, day-to-day syntax; development of skills in performing under time pressures and test conditions; development of comprehension and analysis skills. Self-paced, programmed instruction is enhanced by lectures, skill practice sessions, and audio-visual aids.

Credit recommendation: In the vocational certificate category or in the lower division baccalaureate/associate degree category, 1 semester hour in Language Skills (English) (11/74).

Mathematics

Location: Experimental Training Laboratory, 500 Eighth Avenue, New York, NY.

Length: 180 hours (9-12 weeks); individualized program.

Dates: January 1968—Present.

Objective: To enable the student to gain computational mastery of basic arithmetic skills.

Instruction: Basic arithmetic skills. Addition, subtraction, multiplication, and division of whole numbers, common fractions, and decimals; ratio; proportion; percentages. Diagnostic testing directs the students to individualized learning materials appropriate for their background. Criteria testing measures and monitors the understanding and progress of the students. Programmed instruction is enhanced by lectures, individualized instruction, simulations, and skill practice sessions.

Credit recommendation: In the vocational certificate category or in the lower division baccalaurate/associate degree category, 1 semester hour in Basic Mathematics (11/74).

Methods/Staff Assistant Administrative Training (1004)

Location: Overlook Lodge, Bear Mountain, NY, Holiday Inn, Orangeburg, NY.

Length: 35 hours (5 days); residential.

Dates: May 1972—Present.

Objective: To enable new managers to apply specific management skills to first-line managerial responsibilities.

Instruction: Organizing; aspects of communications; controlling; planning; operant management (positive reinforcement); motivation; individual/group decision making; managerial styles. Methodology includes the use of lectures, discussion, in-basket exercises, role playing, readings, and video taping and critique.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Management or Administration (11/74).

Number Five Crossbar—with AMA (Automatic Message Accounting) (49 and 126)

Location: Garden City, Menands, New York, and Queens, NY.

Length: 520 hours (13 weeks).

Dates: December 1965—Present.

Objective: To provide the student with the ability to analyze, troubleshoot, and maintain electromechanical and associated circuitry.

Instruction: General description, features, basic components, and equipment aspects of electromechanical relay switching systems; trouble recognition and repair techniques; the use and maintenance of automated diagnostic recording equipment. A detailed study is made of block diagrams and schematics of typical switching systems. (Prerequisite: knowledge of basic electricity and circuit drawings.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 10 semester hours in Industrial (Electromechanical) Technology (6 lecture, 4 laboratory) (8/75).

Number One Crossbar (109)

Location: Garden City, New York, and Queens, NY.

Length: 640 hours (16 weeks).

Dates: July 1968—Present.

Objective: To provide the student with the knowledge needed to analyze, troubleshoot, and maintain electromechanical and associated circuitry.

Instruction: General description, features, basic components, and equipment aspects of electromechanical relay switching systems; trouble recognition and repair techniques. A detailed study is made of block diagrams and schematics of typical switching systems. (Prerequisite: knowledge of basic electricity and circuit drawings.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 10 semester hours in Industrial (Electromechanical) Technology (6 lecture, 4 laboratory) (8/75).

Number One E.S.S. (Electronic Switching Systems) (507, 508, 509, 534 & 539)

Location: Garden City, Menands, New York, Queens, and White Plains, NY.

Length: 1014 hours (6 months).

Dates: January 1967—Present.

Objective: To provide the student with a comprehensive understanding of the fundamentals of digital electronics and computer technology.

Instruction: Introduction to electronic devices; binary and octal number systems; Boolean algebra; truth tables and Karnaugh maps; combinational and sequential logic circuits (gates and flip flops); ferrite core and read-only memory systems; clocks; computer architecture (bus systems, accumulators and registers, buffers, stocks and queues, memory addressing, and parity); programming in Machine and Assembly languages; flowcharting; core mapping; I/O and diagnostic routines; peripheral devices (the tape transport, the teletype, and the magnetic card writer). Significant laboratory experience is included.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Basic Electronics and 6 semester hours in Digital Electronics and in the upper division baccalaureate category, 16 semester hours in Computer Technology (8/75).

Outside Plant Engineering—Basic (4032)

Location: Corporate Learning Center Engineering School, Hotel Thayer, West Point, NY.

Length: 96 hours (3 weeks); residential.

Dates: January 1973—Present.

Objective: To provide the student with an overview and basic working knowledge of the practical design techniques of telephone distribution systems.

Instruction: Route layout sheets; subscriber loop design; electrical protection principles; pole-line design; conduit and manhole design; service requirements; distribution cable design. The course is composed of modules which build on knowledge and skills learned in previous modules. Class time is equally divided between lecture and practical exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Building Services (4/75).

Outside Plant Engineering—Building Industry Consultant (4035)

Location: Corporate Learning Center Engineering School, Hotel Thayer, West Point, NY.

Length: 64 hours (2 weeks); residential.

Dates: January 1970—Present.

Objective: To provide the student with an understanding of building industry services.

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Instruction: New building activity; blueprint reading; design of building's telephone requirements; raceways, floor closets, and main terminal rooms; multi-residential wiring. The course is composed of modules which build on knowledge and skills learned in previous modules. Approximately three-quarters of the course is devoted to practical application of the material presented.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Blueprint Reading and Estimating (4/75).

1. Outside Plant Engineering—Exchange Feeder Route Analysis Program (4065)
2. Outside Plant Engineering—Feeder Route Analysis (4034)

Location: Corporate Learning Center Engineering School, Hotel Thayer, West Point, NY.

Length: 1. 32 hours (1 week); residential.
2. 32 hours (1 week); residential.

Dates: January 1973—Present.

Objective: To provide the student with the computer applications of feeder route planning and design.

Instruction: Preparation and analysis of specialized coding forms; remote data entry; analysis and decisions based on program output; route layout applications for feeder route design and relief. The course is composed of modules which build on knowledge and skills learned in previous modules. Approximately half of the class time is devoted to practical application of the material presented.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Computer Applications in Engineering Technology or Industrial Technology or Introductory Data Processing (4/75). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Outside Plant Engineering—Facilities (4068)

Location: Corporate Learning Center Engineering School, Hotel Thayer, West Point, NY.

Length: 80 hours (2 weeks); residential.

Dates: January 1973—Present.

Objective: To provide the student with the tools and methods to properly design and administer new and existing feeder and distribution facilities.

Instruction: Case study approach to the design of a telephone distribution system for a suburban community using both new and existing facilities.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Elementary Engineering Case Studies or Industrial Design (4/75).

Outside Plant Engineering—Feeder Route Analysis (4034)

Refer to Outside Plant Engineering—Exchange Feeder Route Analysis Program (4065).

Panel Apparatus

Refer to Panel Switching Systems.

Panel Selector Circuits

Refer to Panel Switching Systems.

Panel Senders and Decoders

Refer to Panel Switching Systems.

Panel Switching Systems

1. **Panel Selector Circuits**
2. **Panel Senders and Decoders**
3. **Panel Apparatus**

Location: New York and Queens, NY.

Length: 480 hours (12 weeks).

Dates: March 1965—Present.

Objective: To provide the student with the knowledge needed to analyze, troubleshoot, and maintain electromechanical and associated circuitry.

Instruction: General description, features, basic components, and equipment aspects of electromechanical relay and stepping switching systems; trouble recognition and repair techniques. A detailed study is made of block diagrams and schematics of typical switching systems. (Prerequisite: knowledge of basic electricity and circuit drawings.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 8 semester hours in Industrial (Electromechanical) Technology (4 lecture, 4 laboratory) (8/75). NOTE: Courses 1, 2, and 3 must all be completed in order to receive credit.

Programmed Training Course for Service Assistants (9012, 2001)

Location: Local telephone offices throughout New York State.

Length: 35 hours (7-10 days); individualized program.

Dates: April 1969 – Present.

Objective: To enable the trainee to plan for, implement, evaluate, and conduct initial and remedial training on a one-to-one or two-to-one basis.

Instruction: Teaching methods; reinforcement theory; communication skills; planning and scheduling training; selection of corrective training; evaluation of students and providing feedback. Workbooks, programmed texts, role playing, and audio tapes are used. Instruction is provided in self-paced modular units.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Foundations of Supervision or Training Techniques or in the upper division baccalaureate category, 2 semester hours in Foundations of Supervision or Training Techniques (11/74).

Second Level Staff Administrative Training (10007)

Location: Overlook Lodge, Bear Mountain, NY; Holiday Inn, Orangeburg, NY.

Length: 32 hours (4-1/2 days); residential.

Dates: January 1973 – Present.

Objective: To enable a manager to demonstrate on the job a measurable increase in acceptance of the basic accountability for meeting company needs, commitment to the achievement of the corporate goals, and skill in the management function which should create a stimulating climate for the subordinate staff.

Instruction: Management theories of Kostick, McGregor, and Maslow; motivation; time management; communications and language usage; operant management (positive reinforcement); appraisal interviews; analysis of Union Carbide and Western Company cases. Role playing, films, and classroom exercises are used.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Management (11/74).

Second Level Workshop (5030)

Location: Overlook Lodge, Bear Mountain, NY.

Length: 40 hours (1 week); residential.

Dates: October 1972 – Present.

Objective: To assist middle-level managers in developing key managerial skills required to perform their jobs effectively.

Instruction: Advanced behavioral science theory workshop; combines theory inputs with gaming, simulations, role-playing exercises, case studies, and experience-based learning. The following areas are covered from a behavioral viewpoint: leadership; management styles; learning; motivation; communications; personnel development; team development. Considerable student participation, interaction, and self-assessment.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Applied Behavioral Sciences (3/74).

Service Analysis

Version 1: Service Analysis (9001)
Version 2: Service Analysis (TSPS 9001)
Version 3: Service Analysis (Directory Assistance 9040)

Location: Operator Services Management Training Center, 1790 Broadway, New York, NY.

Length: 35 hours (5 days).

Dates: **Version 1:** January 1964 – March 1975.
Version 2: March 1975 – Present.
Version 3: March 1975 – Present.

Objective: To teach managers of Operator Services offices the technical, analytical, and managerial skills necessary to analyze service results and plan required training programs for subordinates.

Instruction: Development of analytical skills in measuring service performance; training in development of staff capability in service performance measurement; knowledge of Operator Services department objectives; errors and irregularities; index plan, management observations, and Operator Services Answer Consistency Plan; proper handling of customer contacts; evaluation of tone of service. Role playing is used in situations requiring judgment of staff performance.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Operations Management (3/74).

Station Repair (103)

Refer to Basic Installation – Suburban (102).

Supervisory Decisions, Actions and Growth (5002)

Location: 111 Livingston Street, Brooklyn, NY;

140 West Street, New York, NY; 20 Park Street, Albany, NY.

Length: 45 hours (1 week); residential.

Dates: June 1973 – August 1975.

Objective: To assist lower level managers in developing key managerial skills required to perform their jobs effectively.

Instruction: Introductory behavioral science theory workshop. Decision making; leadership; motivations; group dynamics; self-awareness. Combines theory inputs with gaming, simulations, role-playing exercises, case studies, and experienced-based learning.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Applied Behavioral Sciences (3/74).

Supervisory Responsibilities Workshop (8025)

Location: Corporate Learning Center, White Plains Hotel, White Plains, NY.

Length: 80 hours (2 weeks); residential.

Dates: September 1973 – Present.

Objective: To increase the professional competence of first-level supervisors in human relations and the management process.

Instruction: Application of the management process, including planning, organizing, and controlling, communication skills; personnel and labor relations; transactional analysis. Lecture, discussion, case studies, role-play exercises, and small group projects are used.

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Management Process (7/75).

Thirteen Week Pre-Management Training Course (9004)

Location: Traffic Management Training Center, 1790 Broadway, New York, NY.

Length: 455 hours (13 weeks); residential.

Dates: January 1964 – Present.

Objective: To prepare potential managers to assume responsibilities of administering an Operator Services office.

Instruction: An integrated program which was broken into three parts for purposes of evaluation. **Part 1:** General management functions (including development of plans); personnel management functions (hiring and interviewing, motivation training, performance appraisal, payroll implementation, industrial relations, and indoctrination of new employees). **Part 2:** Review of all phases of force management cost control; development of statistical techniques and managerial considerations in formulation of policies regarding workload forecasting and personnel planning; peg count procedures; long- and short-range force programs; development of efficiency measurements. **Part 3:** Development of analytical skills in measuring service performance; knowledge of traffic department objectives; errors and irregularities; index plan, management observations, and speed of answer index; uniformity index; proper handling of customer contacts. Role playing used in situations requiring judgment on staff performance.

Credit recommendation: Part 1: In the upper division baccalaureate category, 6 semester hours in General Management (3/74). **Part 2:** In the upper division baccalaureate category, 3 semester hours in Managerial Planning, Operations Management, or Work Force Management (3/74). **Part 3:** In the upper division baccalaureate category, 3 semester hours in Operations Management (3/74).

Trainer Workshop (5031)

Location: Overlook Lodge, Bear Mountain Inn, Bear Mountain, NY; Sheraton Eagle Bay Inn, Ossining, NY.

Length: 40 hours (1 week); residential.

Dates: October 1972 – Present.

Objective: To improve the skill of corporate instructors, course designers, and training administrators in the art and science of helping adults learn.

Instruction: Establishing an appropriate climate for learning; facilitating the learning process; using a variety of methods of presentation; use of voice, language, and physical action; working with others in group settings; specifying personal plans for self-development.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Educational Methodology (3/74).

MARKETING MANAGEMENT TRAINING PROGRAM

The Marketing Management Training Program was designed to provide a comprehensive and relevant study of the Marketing field, including both quantitative and conceptual elements. Two pedagogical approaches are taken in presenting the material. The quantitative courses – Statistical Foundations, Sampling and Forecasting, Multivariate Analysis, Computer Applications in Marketing – are instructed in half-day sessions over 10-week periods. This technique allows adequate time for individual study and homework assignments. The balance of the training – Marketing Concepts and Analysis, Market Research and Segmentation, Consumer Behavior and Marketing Strategy – is conducted in one-week sessions on a "live-in" basis. The advantages of this approach include informal discussion with faculty members and a convenient working environment for group projects and case preparation.

Computer Applications in Marketing (M0906)
(Business Statistics)

Location: 10 Columbus Circle, New York, NY.

Length: 35 hours (10 weeks).

Dates: March 1976 – Present.

Objective: To teach the student how to use computers in statistical analyses relating to business decision making.

Instruction: Computer concepts; BASIC language and programs; statistical techniques (sampling, regression, multivariate analysis, time series, and probabilistic models). Emphasis is on packaged computer programming material.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Business or Statistics (8/76).

Consumer Behavior and Marketing Strategy (M0902)

Location: East Norwich Inn, East Norwich, NY.

Length: 35 hours (1 week).

Dates: February 1976 – Present.

Objective: To provide an understanding of the psychological dimensions of consumer behavior, current macroeconomic analysis, and strategic marketing planning.

Instruction: General psychological models of behavior; perception; learning theory; personality, motivation, and behavior. An overview of macroeconomic theory, with emphasis on inflation and recession. Strategic planning concepts, with emphasis on the components of the marketing mix.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Marketing (8/76).

Market Research and Segmentation (M0901)
(Introduction to Market Research)

Location: East Norwich Inn, East Norwich, NY.

Length: 40 hours (1 week).

Dates: September 1975 – Present.

Objective: To provide an introduction to the various facets of marketing research processes, and a study of marketing segmentation approaches.

Instruction: Goal setting and project planning; field force supervision; data collection and data analysis; criterion variables; analytical tools; methods and philosophy of segmentation. The course includes the use of projects and case studies.

Credit recommendation: In the graduate degree category, 3 semester hours in Marketing (8/76).

Marketing Concepts and Analysis (M0900)
(Marketing Management)

Location: East Norwich Inn, East Norwich, NY.

Length: 35 hours (1 week).

Dates: May 1975 – Present.

Objective: To provide an overview of the conceptual foundation of marketing and appropriate decision-making, analytical techniques.

Instruction: Marketing introduction; buyer behavior; market research; product planning; pricing; promotion; advertising; and decision analysis. Overview of applied analytical methods; multiple regression; and perceptual mapping and modeling. The course includes the use of case studies.

Credit recommendation: In the graduate degree category, 3 semester hours in Marketing (8/76).

Multivariate Analysis (M0905)
(Marketing Applications of Multivariate

Analysis)

Location: 461 Eighth Avenue, New York, NY.

Length: 35 hours (10 weeks).

Dates: January 1976 – Present.

Objective: To enable the student to apply and evaluate multivariate analytic techniques for marketing decisions.

Instruction: An examination of the various multivariate analysis techniques and their application to marketing. Correlation and regression; multiple regression; automatic interaction detector (AID); multiple discriminant analysis; cluster analysis; multidimensional scaling and conjoint measurement.

Credit recommendation: In the graduate degree category, 3 semester hours in Marketing (8/76).

Sampling and Forecasting (M0904)

Location: 461 Eighth Avenue, New York, NY.

Length: 35 hours (10 weeks).

Dates: July 1975 – Present.

Objective: To provide the student with a managerial outlook on the utilization, techniques, and applications of sampling and forecasting.

Instruction: Data collection; nonprobability and probability samples; stratified sampling; quota samples; cluster; systematic and area sampling; applications of results; econometrics; business cycles; leading and lagging indicators; industry forecasts; sales force opinion; time series analysis; regression and correlation in forecasting.

Credit recommendation: In the upper division baccalaureate category, or in the graduate degree category, 3 semester hours in Applied Statistics (8/76).

Statistical Foundations (M0903)

Location: 461 Eighth Avenue, New York, NY.

Length: 35 hours (10 weeks).

Dates: May 1975 – Present.

Objective: To provide the student with the techniques needed to carry out the statistical analysis of data in business decision areas.

Instruction: Data sources; sample size determination; the normal curve; descriptive statistics interpretation; statistical inference; small samples; analysis of variance; chi-squares; tests of independence of principles of classification; regression and correlation.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Statistics (8/76).

PEPSI-COLA COMPANY

The following courses conducted by the Pepsi-Cola Management Institute were evaluated at the world headquarters of Pepsi-Cola in Purchase, New York, on August 23-25, 1977, but the official course descriptions and credit recommendations were not available when this edition of the *Guide* went to press. Information on these courses may be obtained from the New York State Education Department.

Advanced Finance Seminar
Basic Finance Seminar
Coordinating the Marketing and Production Functions of the Franchise
Distribution Management
Dynamics of Warehouse Operations
Franchise Opportunities thru Market Research
Introduction to Management
Management by Objectives
Marketing to Chain Stores
The People's Program: Individual Development
Project Management
Promotion Profitability
Sales Forecasting

PLAY SCHOOLS ASSOCIATION, INC.

The Play Schools Association is a national, nonprofit agency which was established in 1917 to foster the utilization of play/activities as an educational, therapeutic, and recreational tool to benefit children. The central focus of the Association's program is to prevent social breakdown and delinquency by providing necessary guidance during the years in which the patterns of adulthood are shaped in the interaction of work and play alike.

The Association provides a wide range of public and private agencies with consultation and training services. These include: the conduct of projects using action-research in curriculum development; testing and evaluating education equipment, materials, and methods of teaching both normal and handicapped children; the production of films and publications; and training programs for professionals, paraprofessionals, parents, and volunteers. The program listed below is conducted in cooperation with Blythedale Children's Hospital.

Source of official student records: Executive Director, The Play Schools Association, Inc., 111 East 59th Street, New York, New York 10022.

In-Service Training Institute in Therapeutic Recreation

Location: Blythedale Children's Hospital, Valhalla, NY.

Length: 60 hours (10 weeks).

Dates: May 1977 – Present.

Objective: To provide the knowledge, skills, and attitudes required for the development of therapeutic recreation programs in both institutional and community settings.

Instruction: An indepth study of therapeutic recreation for persons working in various institutional settings (clinical practitioners through supervisory personnel). Training content consists of special skills workshops in games, crafts, puppetry, music, dramatics, gross motor activities and sports, animation, video taping, woodworking, and scrap crafts. Interdisciplinary workshops and lectures include representatives from the fields of special education, nursing, psychiatry, occupational therapy, physical therapy, and speech therapy. In addition, clinical practice is scheduled involving direct work with children in the therapeutic recreation program.

Credit recommendation: In the graduate degree category, 2 semester hours in Therapeutic Recreation (5/77).

PORT AUTHORITY OF NEW YORK AND NEW JERSEY

The Port Authority of New York and New Jersey is an independent public agency responsible for developing and operating transportation and other facilities of commerce within the New York-New Jersey metropolitan area. The facilities include international airports, interstate tunnels and bridges, marine terminals, interstate bus terminals, motor union trucking terminals, and a rapid transit system between New York and New Jersey.

Opportunities for training and development are available in a variety of areas including executive management, clerical, operations, maintenance, and such specialized areas as police work and tolls collection. Formal courses and programs are developed by the Personnel Department's Career Development Division and are conducted by various departments within the company as well as by professionals from academic institutions and industry. In offering these programs, the Port Authority utilizes the module concept. Training modules are made up of two to five courses covering various phases of the same general subject or geared to different levels of experience. Background courses in a module may be taken in sequence or not, as the applicant chooses. Courses from different modules may also be taken.

Source of official student records: Manager, Career Development Division, The Port Authority of New York and New Jersey, One World Trade Center, Suite 62 South, New York, New York 10048.

Advanced Records Management

Location: One World Trade Center, New York, NY.

Length: 36 hours (4 weeks).

Dates: September 1971—Present.

Objective: To provide the student with the expertise to handle and process more complex records management transactions; to improve supervisory effectiveness.

Instruction: Classification and indexing; records retention and storage; work organization; audits; fundamentals of supervision. (Prerequisite: Fundamentals of Records Management.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Business Administration, Records Management, or Secretarial Science or in the upper division baccalaureate category, 2 semester hours in Business Education (9/75).

Case Problems in Organizational Behavior and Administration

Location: One World Trade Center, New York, NY.

Length: 30 hours (10 weeks).

Dates: January 1968—Present.

Objective: To broaden the participant's understanding of the managerial process both within and outside the corporate environment.

Instruction: Organizational structure; individual behavioral patterns; superior/subordinate relationships; group dynamics; the processes of communication, control, innovation, and change; the works of Weber, Maslow, Hertzberg, and McGregor. The course is divided between discussion of assigned readings, group analysis of case problems, and lecture presentation of theory and related research findings.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Organizational Behavior (4/75).

1. Case Problems in Systems Analysis
2. Management Orientation to Computers

Location: One World Trade Center, New York, NY.

Length: 1. 12 hours.
2. 20 hours.

Dates: January 1971—Present.

Objective: To provide the student with an introduction to the basics of computers and computer systems and their application; to provide an introduction to the concepts of simulation and quantitative methods in system analysis.

Instruction: Basic concepts of electronic data processing. Data representation and recording; computer equipment; how the computer is instructed to perform its task; how this tool can assist in problem solving and providing information; fundamental procedures used in computer systems analysis. Programming exercises in BASIC. Case studies, lecture, discussion, and laboratory/workshops are used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Business or Management Science (2/75). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Fundamentals of Records Management

Location: One World Trade Center, New York, NY.

Length: 33 hours (3-1/2 weeks).

Dates: September 1971 – Present.

Objective: To introduce the student to records systems.

Instruction: Filing procedures and systems; subject classifications; records retention; transfer and destruction of records; handling requests; followup procedures.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Business Administration, Records Management, or Secretarial Science or in the upper division baccalaureate category, 2 semester hours in Business Education (9/75).

High Tension Training Program

Location: LaGuardia Airport Training Center, New York, NY.

Length: 60 hours (12 weeks).

Dates: June 1966 – Present.

Objective: To train electricians and electrical foremen as high tension system operators in order to assume on-site responsibility for the operation, maintenance, and fault diagnosis of high tension power distribution systems.

Instruction: Safety; safety and test equipment; control equipment; distribution systems; power systems and grounding theory; transformers; cables; system protection; low tension distribution systems; low tension equipment; typical equipment; fault diagnosis and recordkeeping.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Electrical Construction Maintenance or Electrical Power Distribution (9/75).

Leadership Communications Workshop

Location: Hotel Thayer, West Point, NY.

Length: 45 hours (5 days); residential.

Dates: January 1965 – Present.

Objective: To develop the communications knowledge, attitudes, and skills necessary to achieve effective performance within an organizational structure.

Instruction: Methods of effective communication with supervisors, subordinates, and peers; understanding and resolving communications barriers; the importance of listening and utilizing feedback. The course includes a series of lectures, training exercises, readings, and laboratory activities which permit the student to evaluate new ideas and approaches to communications and receive feedback concerning the effectiveness of his/her communications skills.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Applied Behavioral Science (4/75).

The Managerial Grid

Location: Harrison House, Glen Cove, NY.

Length: 60 hours (5-1/2 days); residential.

Dates: January 1968 – Present.

Objective: To make the student a more effective manager by understanding and analyzing the effect of various managerial styles, receiving feedback on his/her managerial style, and experimenting with different managerial styles.

Instruction: Managerial grid concepts; analysis of dominant and backup managerial styles; use of critique in building team effectiveness; organizational culture concepts; causes and resolutions of organizational conflict; study of personal grid styles. Through the use of case problems, role playing, team critiques, and team problem solving, participants are able to analyze their effectiveness as individuals and as part of a problem-solving team.

Credit recommendation: In the graduate degree category, 2 semester hours in Behavioral Aspects of Management (4/75).

1. Managerial Psychology
2. Motivation – Key to Productivity

Location: One World Trade Center, New York, NY.

Length: 1. 20 hours (10 weeks).
2. 18 hours (9 weeks).

Dates: 1. January 1973 – Present.
2. January 1968 – Present.

Objective: **Course 1:** To review the applications of basic principles of psychology to management situations. **Course 2:** To review current concepts of motivation and behavior as applied to the individual and the group in a work environment.

Instruction: **Course 1:** Industrial psychology; counseling and interviewing; motivation; learning and training; group dynamics; evaluation and appraisal. Course material is presented through lecture, discussion, role playing, films, and problem-solving exercises. **Course 2:** Principles of motivation; the self-motivated achiever; Hertzberg's motivation-through-job-enrichment theory; McGregor's "Theory X – Theory Y"; human nature and organizational realities; management of human assets. The course consists of a series of films and seminar discussions.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Managerial Psychology (5/75). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Management Orientation to Computers

Refer to Case Problems in Systems Analysis.

1. Managerial Workshop
2. Tools, Skills, and Principles of Management

Location: One World Trade Center, New York, NY.

Length: 45 hours (8 weeks).

Dates: January 1974 – Present.

Objective: To identify and explore current management concepts and principles; to enable participants to become effective team members and leaders.

Instruction: The management function; the manager's job; planning; organizing; controlling; delegating responsibility and authority; the manager's responsibility for developing subordinates; standards and appraisal; communications and perceptions; motivation; patterns of leadership; the decision-making process. Using case problems, simulations, role playing, and skills exercises, participants apply the management tools of setting standards, communicating, motivating, directing, and decision making.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in General Management (4/75).

Motivation – Key to Productivity

Refer to Managerial Psychology.

Personnel Supervision

Location: One World Trade Center, New York, NY.

Length: 37-1/2 hours (15 weeks).

Dates: January 1965 – Present.

Objective: To increase managerial efficiency by providing an understanding of the principles of supervision.

Instruction: Selection and placement; training and personal development; employee attitudes; job performance; labor relations.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Supervision (5/75).

Problem Analysis and Decision Making

Location: Harrison House, Glen Cove, NY; Hotel Thayer, West Point, NY; Molly Pitcher Hotel, Red Bank, NJ; Nassau Inn, Princeton, NJ.

Length: 45 hours (5 days); residential.

Dates: January 1965 – Present.

Objective: To provide the student with the skills needed to identify, gather, and analyze relevant information in management situations requiring problem analysis, decision making, and control.

Instruction: A systematic, logical approach to identifying and processing information in three areas: analyzing a problem to determine its cause (problem analysis); making a sound decision after considering desired results, available resources, and potential adverse consequences (decision making); and successful implementation of a plan to effectively deal with the problem (control). Students work as teams to handle case problems and in-basket exercises to develop an understanding of the concepts of logical thinking in the analysis of current management problems.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in General Management (4/75).

Psychology – Understanding Human Behavior I

Location: One World Trade Center, New York, NY.

Length: 37-1/2 hours (15 weeks).

Dates: January 1965 – Present.

Objective: To provide an introduction to psychological principles.

Instruction: Heredity and environment; motivation; emotions; individual differences; learning theory and perception; social behavior.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Psychology (5/75).

Sergeants' Pre-Promotional Supervisory Training Course

Location: One Path Plaza, Journal Square Transportation Center, Jersey City, NJ.

Length: 37 hours (2 weeks).

Dates: January 1967 – Present.

Objective: To provide the student with basic supervisory principles and techniques.

Instruction: First-line supervisory training. Administrative procedures; supervision; leadership; effective communication; the management functions (planning, organizing, directing, controlling) as carried out by the supervisor. Workshops, lectures, and seminars are used.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Principles of Supervision (12/74).

Stenographic Skills (100 WPM)

Location: One World Trade Center, New York, NY.

Length: 20 hours (5 weeks).

Dates: January 1971 – Present.

Objective: To increase the student's stenographic speed from 80 to 100 words per minute.

Instruction: Students are pre- and post-tested to determine individual proficiency. Dictation is given throughout the course for instructor information and student feedback. No theory instruction is included.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Secretarial Science (9/75).

Stenographic Skills (120 WPM)

Location: One World Trade Center, New York, NY.

Length: 20 hours (5 weeks).

Dates: January 1971 – Present.

Objective: To increase the student's stenographic speed from 100 to 120 words per minute.

Instruction: Students are pre- and post-tested to determine individual proficiency. Dictation is given throughout the course for instructor information and student feedback. No theory instruction is included.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Secretarial Science (9/75).

The Supervisor's Job

Location: Hotel Thayer, West Point, NY.

Length: 45 hours (5 days); residential.

Dates: January 1965 – Present.

Objective: To provide the participant with an understanding of the manager's role in an organization; to provide him/her with a background of basic principles of efficient business management.

Instruction: The supervisor's job; organizational theory; roles and role conflict; behavior and attitudes; motivation and morale; patterns of leadership; delegation of responsibility and authority; interpersonal and intergroup relationships; conflict resolutions; consensual decisions; effective group action. Course objectives are realized through a series of selected readings, lectures, discussions, and job-related simulation and role-playing exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Behavioral Aspects of Management (4/75).

Tools, Skills, and Principles of Management

Refer to Managerial Workshop.

Typing Skills Training

Location: One World Trade Center, New York, NY.

Length: 20 hours (5 weeks).

Dates: January 1971 – Present.

Objective: To upgrade the student's typing speed from 40 to 50 words per minute.

Instruction: Students are pre- and post-tested to determine individual proficiency. Timed writings are used throughout the course for instructor information and student feedback. No keyboard instruction is given.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Secretarial Science (9/75).

AUTOMOTIVE APPRENTICE TRAINING PROGRAM

The courses listed below constitute the Automotive Apprentice Training Program, which is designed to prepare entrance level personnel and high school recruits for employment within the Port Authority as automotive mechanics. Entrance level personnel include laborers, maintenance men, helpers, and clerical staff. Selection for the program is on the basis of performance in a competitive examination; applicants must also have high school diplomas. Once selected, trainees are required to participate in a four-year program, which includes approximately a two-year after-hours class and shop-related instruction program and a four-year on-the-job program, which run concurrently. If a trainee does not maintain a satisfactory rating in his work performance and instructional training at any time during this four-year period, he is dropped from the program.

Automotive Class and Shop Work

Location: Various Port Authority training facilities.

Length: 5,854 hours (4 years); combined lecture and shop.

Dates: January 1965 – Present.

Objective: To provide automotive apprentices with the knowledge and skills necessary to qualify as journeymen mechanics.

Instruction: Gasoline and diesel power plants; fuel systems; transmissions; electrical systems; basic machine shop and welding procedures; hydraulic and pneumatic systems; brakes; diagnosis and testing; routine vehicle maintenance and service.

Credit recommendation: In the lower division baccalaureate/associate degree category, 30 semester hours in Automotive Mechanics (9/75).

Basic Mathematics

Location: Various Port Authority training facilities.

Length: 72 hours (12 weeks).

Dates: January 1965 – Present.

Objective: To provide a foundation in trade-related mathematics necessary for an automotive apprentice training program.

Instruction: Whole numbers; fractions; decimals; percentage; power and roots; ratio and proportion; solution of equations in one variable; mensuration; triangles. (Text used: *Basic Mathematics Simplified,* by C. Thomas Olivo.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Elementary Mathematics (9/75).

Basic Physics

Location: Various Port Authority training facilities.

Length: 72 hours (12 weeks).

Dates: January 1965 – Present.

Objective: To provide a foundation in trade-related science for electrical and automotive apprentice training programs.

Instruction: Properties of matter; mechanics and machines; magnetism and electrical energy; heat energy and heat machines; light energy; sound energy; electronics; nuclear energy. (Text used: *Fundamentals of Applied Physics,* by C. Thomas Olivo and Alan Wayne.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Elementary Physics (9/75).

Blueprint and Automotive Drawing Interpretation

Location: Various Port Authority training facilities.

Length: 72 hours (12 weeks).

Dates: January 1965 – Present.

Objective: To train automotive apprentices in blueprint reading, sketching, and automotive drawing interpretation.

Instruction: Basic blueprint reading, trade sketching, and interpretation of automotive assembly; drawings of such things as the engine assembly, cooling systems, the fuel system, and electrical systems. (Text used: *Automotive Drawing Interpretation,* by Louis E. Jensen.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Automotive Drawing and Blueprint Reading (9/75).

ELECTRICAL APPRENTICE TRAINING PROGRAM

The courses listed below constitute the Electrical Apprentice Training Program, which is designed to prepare entrance level personnel and high school recruits for employment within the Port Authority as journeymen electricians. Entrance level personnel include laborers, maintenance men, helpers, and clerical staff. Selection for the program is on the basis of performance in a competitive examination; applicants must also have high school diplomas. Once selected, trainees are required to participate in a four-year program, which includes 600 hours of after-hours class and shop-related instruction and an on-the-job program, which run concurrently. If a trainee does not maintain a satisfactory rating in his work performance and instructional training at any time during this four-year period, he is dropped from the program.

1. Advanced Electrical Theory
2. Alternating Current
3. Applied D.C. and A.C. Theory
4. Electrical Theory and Circuits
5. Industrial Electronic Controls

Location: Various Port Authority training facilities.

Length: Classroom Instruction—363 hours. Field Work—7,680 hours.

Dates: January 1965—Present.

Objective: To provide apprentices with the knowledge and skills needed to qualify them as journeymen electricians.

Instruction: D.C. circuits; A.C. circuits; polyphase circuits; motors, generators, and transformers; motor and generator controls; rectifiers; basic amplifier concepts.

Credit recommendation: In the lower division baccalaureate/associate degree category, 14 semester hours (lecture) and 16 semester hours (shop) in Electrical Construction Maintenance (9/75). NOTE: Courses 1, 2, 3, 4, and 5, must all be completed in order to receive credit.

Alternating Current

Refer to Advanced Electrical Theory.

Applied D.C. and A.C. Theory

Refer to Advanced Electrical Theory.

Basic Mathematics

Location: Various Port Authority training facilities.

Length: 93 hours (15 weeks).

Dates: January 1965—Present.

Objective: To provide a foundation in trade-related mathematics necessary for electrical and watch engineer apprentice training programs.

Instruction: Whole numbers; fractions; decimals; percentage; power and roots; ratio and proportion; solution of equations in one variable; mensuration; triangles; slide rule. (Text used: *Basic Mathematics Simplified,* by C. Thomas Olivo.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Elementary Mathematics (9/75).

Basic Physics

Location: Various Port Authority training facilities.

Length: 72 hours (12 weeks).

Dates: January 1965—Present.

Objective: To provide a foundation in trade-related science for electrical and automotive apprentice training programs.

Instruction: Properties of matter; mechanics and machines; magnetism and electrical energy; heat energy and heat machines; light energy; sound energy; electronics; nuclear energy. (Text used: *Fundamentals of Applied Physics,* by C. Thomas Olivo and Alan Wayne.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Elementary Physics (9/75).

Blueprint Reading and Sketching

Location: Various Port Authority training facilities.

Length: 72 hours (12 weeks).

Dates: January 1965—Present.

Objective: To train electrical apprentices in blueprint reading, sketching, and estimating, and in the application of the National Electric Code.

Instruction: Fundamentals of mechanical drafting; the National Electric Code symbols and nomenclature; reading, analyzing, and drawing of residential, commercial, and industrial wiring diagrams; electrical construction estimating.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Electrical Blueprint Reading and Estimating (9/75).

Electrical Theory and Circuits

Refer to Advanced Electrical Theory.

Industrial Electronic Controls

Refer to Advanced Electrical Theory.

POLICE RECRUIT TRAINING PROGRAM

The courses listed below make up the academic part of the Police Recruit Training Program conducted by the Port Authority Police Academy. This is an intensive twelve-week program in which all newly appointed Port Authority police offers participate. All courses are conducted at the Police Academy which is located at One Path Plaza, Journal Square Transportation Center, Jersey City, New Jersey 07306.

Source of official student records: Manager, Career Development Division, The Port Authority of New York and New Jersey, One World Center, Suite 62 South, New York, New York 10048.

Accident Prevention, First Aid, and Safety Education

Location: One Path Plaza, Journal Square Transportation Center, Jersey City, NJ.

Length: 30 hours.

Dates: January 1967—Present.

Objective: To provide the student with the theory and practice of first aid procedures.

Instruction: Theory and practice of first aid procedures in such situations as shock, wounds, strokes, and heart attacks; transportation of hazardous commodities; extrications from dangerous situations; radiation detection; principles of safety.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Physical Education (12/74).

Criminal Law and Procedure

Location: One Path Plaza, Journal Square Transportation Center, Jersey City, NJ.

Length: 50 hours.

Dates: January 1967—Present.

Objective: To provide the student with an understanding of Criminal Procedure Law and Penal Law in New York and New Jersey and their application to daily police activities.

Instruction: Introduction to criminal law with special emphasis on the New York and New Jersey statutes. Use of affidavits; court appearances; the grand jury system. Lectures, workshops, and seminars are used.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Criminal Law (12/74).

Introduction to Law Enforcement

Location: One Path Plaza, Journal Square Transportation Center, Jersey City, NJ.

Length: 39 hours (10-20 additional hours of structured independent study).

Dates: January 1967—Present.

Objective: To acquaint students with the structure and organizational framework within which they will function in their role as public servants.

Instruction: Introduction to the criminal justice system and the role of police in that system, with special emphasis on the courts at Federal, state, and local levels. Students complete a research project in some aspect of the judicial system and participate in lectures, laboratories, and class discussions.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Law Enforcement (12/74).

Police and Community Problems

Location: One Path Plaza, Journal Square Transportation Center, Jersey City, NJ.

Length: 39 hours.

Dates: January 1967—Present.

Objective: To introduce the student to some of the dynamics of the police/community relationship.

Instruction: An examination of police and community relations from the police perspective. Development and adherence to a code of ethics; police work as a profession; prejudice as a deterrent to effective police/public contacts; officer/violator communications. Instruction includes lectures, class discussion, and workshops.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Police and Community Problems (12/74).

Social Psychology

Location: One Path Plaza, Journal Square Transportation Center, Jersey City, NJ.

Length: 37 hours.

Dates: January 1967 – Present.

Objective: To introduce the student to the principles of human behavior in relation to police service.

Instruction: Personality; crisis intervention; conflict management; interpersonal communications; small group dynamics; adolescent behavior. Lectures, discussions, and laboratories are used.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Social Psychology (12/74).

Traffic Law and Procedure

Location: One Path Plaza, Journal Square Transportation Center, Jersey City, NJ.

Length: 52 hours.

Dates: January 1967 – Present.

Objective: To provide the student with a practical working knowledge of traffic law and procedure in New York and New Jersey.

Instruction: A comprehensive study of New York and New Jersey traffic laws. Driving while intoxicated; Port Authority traffic law; traffic control/observation; defensive driving; traffic congestion (vehicle and pedestrian); police recruit motor patrol; leaving-the-scene violations; traffic restrictions.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Traffic Law and Procedure (12/74).

WATCH ENGINEER APPRENTICE TRAINING PROGRAM

The courses listed below constitute the Watch Engineer Apprentice Training Program, which is designed to prepare entrance level personnel and high school recruits for employment within the Port Authority as watch engineers. Entrance level personnel include laborers, building and ground attendants, maintenance men, helpers, and clerical staff with some prior knowledge of the mechanical trades. Selection for the program is on the basis of performance in a competitive examination; applicants must also have high school diplomas. Once selected, trainees are required to participate in a four-year program consisting of on-the-job training at various facilities and 175 three-hour evening classroom sessions. If a trainee does not maintain a satisfactory rating in his work performance and instructional training at any time during this four-year period, he is dropped from the program.

1. Air Pollution and Smoke Control
2. Boilers and Accessories
3. Engines

Location: Various Port Authority training facilties.

Length: 1. 24 hours.
2. 60 hours.
3. 30 hours.

Dates: January 1965 – Present.

Objective: To provide an introduction to boilers, air pollution, smoke control, and steam engines necessary to train an apprentice as a journeyman watch or stationary engineer.

Instruction: Boiler construction and code; combustion of fuels; operation and maintenance of boilers; accessories; air pollution and smoke control; steam engines; steam turbines; auxiliary equipment.

Credit recommendation: In the lower division baccalaureate/associate degree category, 8 semester hours in Heating, Air Conditioning, and Refrigeration, Marine Engineering, or Stationary Engineering (9/75). NOTE: Courses 1, 2, and 3 must all be completed in order to receive credit.

Automatic Controls

Location: Various Port Authority training facilities.

Length: 33 hours (5 weeks).

Dates: January 1965 – Present.

Objective: To provide the basic knowledge required to understand the control of heating, air conditioning, and refrigeration systems.

Instruction: Fundamentals of controls and measurement; electric control circuits; pneumatic control circuits.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester

hours in Heating, Air Conditioning, and Refrigeration (9/75).

Basic Electricity

Location: Various Port Authority training facilities.

Length: 72 hours (12 weeks).

Dates: January 1965 – Present.

Objective: To provide the electrical background necessary for the watch engineer journeyman to understand and maintain electrical equipment within the mechanical trades.

Instruction: A survey course covering the following topics: Ohms Law; series, parallel, and series-parallel circuits; power; magnetism; generators; motors; controls.

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Basic Electricity (9/75).

Basic Mathematics

Location: Various Port Authority training facilities.

Length: 93 hours (15 weeks).

Dates: January 1965 – Present.

Objective: To provide a foundation in trade-related mathematics necessary for electrical and watch engineer apprentice training programs.

Instruction: Whole numbers; fractions; decimals, percentage; power and roots; ratio and proportion; solution of equations in one variable; mensuration; triangles; slide rule. (Text used: *Basic Mathematics Simplified,* by C. Thomas Olivo.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 4 semester hours in Elementary Mathematics (9/75).

Basic Physics

Location: Various Port Authority training facilities.

Length: 90 hours (15 weeks).

Dates: January 1965 – Present.

Objective: To provide a foundation in trade-related science for the watch engineer apprentice training program.

Instruction: Properties of matter; mechanics and machines; magnetism and electrical energy; heat energy and heat machines; light energy; sound energy; electronics; nuclear energy. (Text used: *Fundamentals of Applied Physics,* by C. Thomas Olivo and Alan Wayne.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Elementary Physics (9/75).

1. Basic Refrigeration and Air Conditioning
2. Central Station Refrigeration Machines

Location: Various Port Authority training facilities.

Length: 1. 81 hours.
2. 15 hours.

Dates: January 1965 – Present.

Objective: To provide the basic skills necessary in refrigeration and air conditioning to prepare an apprentice as a journeyman watch or stationary engineer.

Instruction: The refrigeration cycle; refrigerants; compressors; condensers; receivers; evaporators; metering devices; lubrication; psychometrics; central station refrigeration machines.

Credit recommendation: In the lower division baccalaureate/associate degree category, 5 semester hours in Refrigeration and Air Conditioning (9/75). NOTE: Courses 1 and 2 must both be completed in order to receive credit.

Blueprint Reading and Sketching

Location: Various Port Authority training facilities.

Length: 30 hours.

Dates: January 1965 – Present.

Objective: To provide students with the fundamental skills necessary for the reading of blueprints.

Instruction: Lines and line quality; Three View drawings; sectional views; orthographic sketching; working with blueprints; analyzing blueprints with an emphasis on HVAC and plumbing.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Blueprint Reading (9/75).

Boilers and Accessories

Refer to Air Pollution and Smoke Control.

Central Station Refrigeration Machines

Refer to Basic Refrigeration and Air Conditioning.

Engines

Refer to Air Pollution and Smoke Control.

Shop and Field Work

Location: Various Port Authority training facilities.

Length: 7,328 hours (4 years).

Dates: January 1965 – Present.

Objective: To provide the watch engineer apprentice with the on-the-job shop and field work necessary to become a journeyman watch or stationary engineer.

Instruction: Plant safety; use of hand tools; heating and ventilating; boilers; fuels; power plant auxiliaries; steam engines; steam and gas turbines; controls; instrumentation; pumps; valves; water supply; sanitation; fire protection.

Credit recommendation: In the lower division baccalaureate/associate degree category, 16 semester hours in Shop, Heating, Air Conditioning, and Refrigeration, or Stationary Engineering (9/75).

PORT AUTHORITY OF NEW YORK AND NEW JERSEY — WORLD TRADE INSTITUTE

The World Trade Institute is the educational unit of the World Trade Center in New York City. The Institute's primary objective is to improve world trade by making individuals active in international business and finance more effective in performing their jobs and better equipped to cope with the frequent changes in the international business environment. Both the Institute and the Center are activities of the Port Authority of New York and New Jersey.

The World Trade Institute's seminars and conferences draw participants from all sections of the United States and from many foreign countries. For residents of the New York—New Jersey—Connecticut area, the Institute offers job-oriented programs through its Evening School of World Trade and its Language School. The Evening School's instructors are drawn from experienced practitioners in the major specialized functions of international commerce and ocean transportation. Students are drawn from staff and supervisory-level personnel from the world trade community. All courses are practical in nature, dealing with actual documents and day-to-day problems confronting both the instructors and their students.

The Language School offers language training as an essential skill in world trade. Its method, too, is practical, providing its students with rapid acquisition of the speaking, comprehension, and reading ability they need on the job and in various social situations. Teachers are specially trained in this method, which eliminates role learning and stock phrases and enables the students to start speaking the new language at the very first session.

Source of official student records: Registrar, The World Trade Institute, One World Trade Center, 55th Floor, New York, New York 10048.

EVENING SCHOOL OF WORLD TRADE

Commodity Trading

Location: One World Trade Center, New York, NY.

Length: 30 hours (15 weeks).

Dates: September 1972—Present.

Objective: To provide the student with an understanding of the mechanics of commodity futures trading, including legal requirements and responsibilities of the trader.

Instruction: The mechanics of futures trading; sources of commodity information; price trends and how to analyze them profitably; seasonal price trends; special characteristics and facts about the individual commodities; government price support and surplus disposal programs; the theory of hedging; advanced hedging procedures; price chart methods used for forecasting; "spreads and straddles" as a method for commodity speculation; rules for speculative trading. (Prerequisite: A course in Introduction to International Trade or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in International Trade (5/77).

Customs Brokerage

Location: One World Trade Center, New York, NY.

Length: 30 hours (15 weeks).

Dates: September 1972—Present.

Objective: To present an overview of procedures required to clear import merchandise through U.S. Customs.

Instruction: Types of entries; purpose; preparation and use of documents required; bill of lading, its value and endorsement; delivery order; classification of invoices; dutiable and non-dutiable charges; examination of merchandise (on dock, at public stores); value determination and collection of duties; cartage; transportation in bond; re-export; restricted items; prohibited items; Department of Health, Education and Welfare forms and procedures; conversion of currency; protests; immediate delivery entries, and drawback entries; custom bonds; power of attorney; liquidations. (Prerequisite: A course in Introduction to International Trade or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in International Trade (5/77).

Export/Import Letters of Credit

Location: One World Trade Center, New York, NY.

Length: 30 hours (15 weeks).

Dates: May 1977 – Present.

Objective: To provide the student with a knowledge of the uses of letters of credit, with special emphasis on international trade.

Instruction: Various types of letters of credit; their effect on the buyer, the seller, and the banking institution; import credit; export credit; government credit; refinancing and banking acceptances. (Prerequisite: A course in Introduction to International Trade or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in International Finance or International Trade (5/77).

Export Transportation Management (Export Traffic)

Location: One World Trade Center, New York, NY.

Length: 30 hours (15 weeks).

Dates: September 1976 – Present.

Objective: To provide the student with an understanding of the requirements and practices applicable to a complete voyage of exportation from seller to ultimate consignee.

Instruction: Routing; shipping charges; insurance rate; packing and marking requirements; letter of credit; sight draft; open account; delivery to exporting carrier; obtaining export documentation; insurance; bank collection; checking freight bills for correct rate and computation; checking invoices from service organizations for correct rates; preparing and filing claims with common carriers when loss or damage is reported; preparing and filing claims with insurance companies; understanding marine insurance. (Prerequisite: A course in Introduction to International Trade or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate/category, 2 semester hours in International Trade (5/77). NOTE: This course covers a substantial portion of the material also covered in Import Transportation Management. Credit should not be awarded to a student for both courses.

Import Transportation Management (Import Traffic)

Location: One World Trade Center, New York, NY.

Length: 30 hours (15 weeks).

Dates: September 1976 – Present.

Objective: To provide the student with an understanding of the requirements and practices applicable to a complete voyage of importation from the seller to ultimate consignee.

Instruction: Prerequisites for importing; arranging for customs clearance; reforwarding of cargo to ultimate consignee; essential aspects of marine cargo insurance; common carrier liability; containerization; cargo claims; interrelation of shipping documents in international transportation, important aspects of transportation of "in bond" cargo. (Prerequisite: A course in Introduction to International Trade or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in International Trade (5/77). NOTE: This course covers a substantial portion of the material also covered in Export Transportation Management. Credit should not be awarded to a student for both courses.

Importing Techniques

Location: One World Trade Center, New York, NY.

Length: 30 hours (15 weeks).

Dates: September 1977 – Present.

Objective: To provide an overview of the activities involved in the actual importation of goods, with strong emphasis on obtaining sources of goods and negotiating purchases.

Instruction: Types of import activity (direct, commission house, broker or factor, agencies); raw materials; finished products; terms and definitions;

contracts; placing of order; import duties; customs regulations; miscellaneous cost (inland freight, cartage, ocean transportation, warehousing, packing, consular fees, loading charges, export duties, stamps, etc.); documents; types of service available through banks, forwarders; carriers, customs brokers, insurance companies; consignments; samples; special licenses; methods of finance. (Prerequisite: A course in Introduction to International Trade or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in International Trade (5/77).

Marine Insurance (Cargo)

Location: One World Trade Center, New York, NY.

Length: 30 hours (15 weeks).

Dates: September 1973—Present.

Objective: To enable the student to properly understand the various policies used by ocean marine underwriters and the underwriter's function in relation to these policies and to the user or supplier of insurance.

Instruction: Arranging insurance; warranties, importance and types; duration of risk; perils insured against, including perils clauses; losses (partial, total, constructive, general average, and salvage); valuation; types; miscellaneous clauses, including carrier clause; strikes, riots, and civil commotions insurance; War Risk insurance; subrogation; reinsurance; loss experience; loss prevention; evaluation of ocean cargo risks.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 2 semester hours in Insurance, International Trade, or Transportation (5/77).

Steamship Accounting (Maritime Accounting)

Location: One World Trade Center, New York, NY.

Length: 30 hours (15 weeks).

Dates: September 1972—Present.

Objective: To provide an understanding of the uniform system of accounts for maritime carriers and financial and managerial accounting for the U.S. Maritime Industry.

Instruction: Organization of financial department; general and administrative expenses; assets; liabilities; voyage accounting; revenue; documentation; vessel expenses; voyage expenses; vessel payrolls; container and barge expense; claims; agents; computer in steamship industry; regulatory agencies; financial statements; analysis of capital structure; subsidy accounting. (Prerequisite: Two years of college accounting.)

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 2 semester hours in Accounting or Transportation (5/77).

U.S. Customs Law: A Problem-Solving Approach

Location: One World Trade Center, New York, NY.

Length: 30 hours (15 weeks).

Dates: May 1977—Present.

Objective: To provide an understanding of U.S. Customs Law in order to minimize duties and avoid violations.

Instruction: Valuation of merchandise; classification of merchandise under tariff schedules; drawback; repayment of duties; countervailing duties imposed in connection with bounties and grants of exporting nation; dumping duties; marking requirements for imported goods; determining country of origin; quota restrictions; penalties and liquidated damages; restricted merchandise; importations prohibited; deferring or avoiding payment of duty; administrative agency procedures; judicial review of customs decisions; available [illegible]s; research materials available for customs problem solving. (Prerequisite: A course in Introduction to International Trade or equivalent experience.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in International Trade (5/77).

Intensive Spoken Spanish

Location: One World Trade Center, New York, NY.

Length: Individualized program (approximately 60-90 hours).

Dates: September 1972—Present.

Objective: To enable the participant to communicate with sufficient fluency in the Spanish language.

Instruction: Fundamentals of the spoken language, with emphasis on pronunciation, vocabulary, sentence patterns and rhythms, and command of the idiom. Self-paced program in a small group structure with maximum opportunity for student participation.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3-12 semester hours in Spanish, depending upon the level of proficiency achieved on the Language Proficiency Interview (originally developed by the Foreign Service Institute) (7/76). NOTE: If a student obtains an exceptionally high score on the examination, and if the World Trade Institute supplies a detailed written evaluation of that student, a school may consider granting additional credit.

READING REFORM FOUNDATION

The Reading Reform Foundation, which was established in 1961, is a nonprofit voluntary organization whose goal is to have intensive phonics used as the base for the early teaching of reading. It is a nationwide organization with headquarters in Scottsdale, Arizona, and committees in most states. The Foundation recommends more than 100 published phonic and linguistic methods of teaching reading.

A large part of the Foundation's efforts in reading reform is devoted to providing workshops and courses in which classroom teachers can learn the phonics approach. The course listed below is one such course that is offered in New York State. Please note that the credit recommendation applies only to the locations indicated.

Source of official student records: Reading Reform Foundation, 7054 East Indian School Road, Scottsdale, Arizona 85251.

You Can Teach Johnny to Read

Location: Council of Churches, 1272 Delaware Avenue, Buffalo, NY; locations throughout New York State.

Length: 30 hours (7 weeks).

Dates: April 1977 – Present.

Objective: To provide the participant with the training needed to teach writing, spelling, and reading using a specific method of intensive phonics instruction.

Instruction: Overview of the Spalding method for the teaching of basic writing, spelling, and reading *(The Writing Road to Reading)*; manuscript and cursive writing of the 26 letters of the alphabet (phonograms 1-26 of the English language) and their sounds; combinations of letters (phonograms 27-70) and their sounds; dictation of Ayres list words and the correct markings to identify phonogram sounds; spelling rules and special spelling situations; syllabication.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Educational Methods, Elementary Education, or Reading; or in the graduate degree category, 1 semester hour in Educational Methods, Elementary Education, or Reading (4/77). NOTE: Credit is recommended only for the 30-hour course.

ST. LUKE'S HOSPITAL CENTER

St. Luke's Hospital Center is a modern, 700 bed facility located at Amsterdam Avenue and West 114th Street in Manhattan. The Center provides a broad range of clinical services and outpatient clinics and has more than 3,000 full-time employees.

The Center offers a broad range of approved training programs in medical specialties. Management development and supervisory skills training in a health care setting are offered by the Center's Personnel Department.

Source of official student records: Director of Training, St. Luke's Hospital Center, Amsterdam Avenue and West 114th Street, New York, New York 10025.

Motivational Dynamics

Location: St. Luke's Hospital Center, Amsterdam Avenue and West 114th Street, New York, NY.

Length: 36 hours (24 weeks).

Dates: November 1975 – Present.

Objective: To improve the effectiveness of practicing first-line supervisors through increased knowledge of management practices and the behavioral sciences and their application on the job.

Instruction: Overview of motivational theory (McGregor, Freud, Maslow, and Herzberg); group dynamics; productivity and the maintenance of morale; effective supervision; participative management; the change process; the communication process; management by objectives; organizational development. The course includes lectures, discussion, video presentations, role plays, case studies, and in-basket exercises.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Behavioral Science or Management (8/75).

SEAMEN'S CHURCH INSTITUTE OF NEW YORK

The Seamen's Church Institute of New York, founded in 1834, is a social service agency related to the Episcopal Church and dedicated to the welfare of seafarers in the Port of New York without any restrictions as to their race, religion, nationality, or sex. It is located in Lower Manhattan.

FRANKLIN D. ROOSEVELT INSTITUTE OF MARITIME AND GENERAL STUDIES

The Franklin D. Roosevelt Institute of Maritime and General Studies was established in 1973 as an evening program to serve the specific educational and training needs of the shore-based employees of the maritime and related industries and of government agencies concerned with maritime affairs, which are located in the metropolitan New York City area. (It was named for the late President as a memorial for the 38 years he served as a member of the board of managers of the Seamen's Church Institute.) Courses cover the full range of maritime transportation in the context of contemporary intermodal procedures. A Certificate in Maritime Transportation is issued to a student upon successful completion of a program of six courses (four required and two elective).

Source of official student records: Registrar, Franklin D. Roosevelt Institute, Seamen's Church Institute, 15 State Street, New York, New York 10004.

Container Control and Terminal Operations

Location: 15 State Street, New York, NY.

Length: 24 hours (12 weeks).

Dates: January 1975 – Present.

Objective: To provide the student with an understanding of the methodology for the flow and control of traffic through a container terminal.

Instruction: An overview of the operation of container terminals, with specific attention to: types of container vessels; terminal operations and design; the effect of regulations and associations on terminal operations; truck, railroad, and intermodal operations; and equipment control.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Transportation Operations and Management (2/76).

EDP (Computer) Techniques for the Transportation Industry

Location: 15 State Street, New York, NY.

Length: 24 hours (12 weeks).

Dates: September 1973 – Present.

Objective: To provide the student with an introduction to electronic data processing in the maritime transportation industry.

Instruction: Introduction to computers and electronic data processing. Computer hardware and software; data communications; system design and logic; data processing applications in the transportation industry.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Transportation Operations and Management (2/76).

Intermodal Transportation/Containerization and Pricing

Location: 15 State Street, New York, NY.

Length: 24 hours (12 weeks).

Dates: September 1973 – Present.

Objective: To provide the student with an understanding of current intermodal procedures and regulations.

Instruction: Containerization; intermodal and multimodal transportation; intermodal pricing; regulatory agencies and transportation law; documentation procedures; computerization in transportation; advanced concepts in material handling and distribution.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Transportation Operations and Management (2/76).

Modern Ocean Transportation

Location: 15 State Street, New York, NY.

Length: 24 hours (12 weeks).

Dates: September 1973 – Present.

Objective: To provide the student with a survey of the previous and current functions of break-bulk and tramp operations in modern ocean transportation.

Instruction: History of ocean transportation; types of vessels; shoreside management and office procedures; labor union and industry organizations; bills of lading and other documentation; the shipping conference system.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Transportation Operations and Management (2/76).

Modern U.S. Domestic Transportation

Location: 15 State Street, New York, NY.

Length: 24 hours (12 weeks).

Dates: January 1974 – Present.

Objective: To provide the student with an overview of the current status of the United States Domestic Transportation Industry.

Instruction: Description of various modes of transportation (railroads, motor carriers, pipelines, water carriers, and airlines); carrier obligations; freight classification and tariffs; freight rate structures.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Transportation Operations and Management (2/76).

Pricing Techniques for the Transportation Industry

Location: 15 State Street, New York, NY.

Length: 24 hours (12 weeks).

Dates: September 1973 – Present.

Objective: To provide the student with the basics of the transportation pricing function within the maritime industry.

Instruction: Overview of pricing techniques for intermodal transportation; transportation and economic growth; supply and demand; theory of costs; shipping costs and their relation to freight rates; structure of the freight rate system; the shipping conference system and free markets; government and its role in transporation pricing.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Transportation Operations and Management (2/76).

U.S. Government Transportation Regulations

Location: 15 State Street, New York, NY.

Length: 24 hours (12 weeks).

Dates: January 1974 – Present.

Objective: To provide the student with a working knowledge of government regulations of transportation.

Instruction: Legal basis of the Federal regulatory functions; the Interstate Commerce Commission and the Interstate Commerce Act; the Federal Maritime Commission and the Shipping Act; the Antitrust Acts; U.S. Customs Regulations.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Transportation Operations and Management (2/76).

SPERRY DIVISION OF SPERRY RAND CORPORATION

The headquarters of the Sperry Division, which is located in Great Neck, New York, consists of Sperry Gyroscope, Sperry Marine Systems, and Sperry Systems Management. The division has a long history of producing high-technology products for ship navigation, guidance, and control and has branched into new areas of technology application, primarily computer-based traffic control and transportation systems.

Sperry's Program for Advancing Careers through Education (SPACE) is a voluntary, after-hours program available to all Great Neck employees. The program offers an extensive series of engineering and computer science courses as well as courses in management and general skills development.

Source of official student records: Management Development and Training Department, Sperry Division, Sperry Rand Corporation, Great Neck, New York 11020.

Advanced Control System Theory (T-602-1)

Location: Division Headquarters, Great Neck, NY.

Length: 30 hours (15 weeks).

Dates: January 1974 – Present.

Objective: To provide an introduction to selected topics in advanced control systems theory.

Instruction: Theoretical and practical aspects of selected topics in advanced control systems theory. Adaptive control systems (disturbances and parameter variations caused by the environment); statistical design of feedback control systems (statistical analysis of control systems in the presence of noise sources); sampled-data control systems (extension of conventional continuous control system techniques to sampled-data systems utilizing the z-transform); human transfer functions (linear, nonlinear, sampled-data, and adaptive representations and uses); modeling utilizing time series theory (methods for determining transfer functions from actual input/output data).

Credit recommendation: In the graduate degree category, 2 semester hours in Engineering (5/75).

Architecture of General Purpose Digital Computers (T-810-1)

Location: Division Headquarters, Great Neck, NY.

Length: 31 hours (15 weeks).

Dates: September 1971 – Present.

Objective: To provide the student with an understanding of the foundations of computer architecture.

Instruction: Single address computers of the Princeton class; bus structured architecture; micro programmable machines; microprocessors; distributed processing networks.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 2 semester hours in Computer Science (5/75).

DMS 1100 Data Base Application and Implementation I and II (T-812-1 & 2)

Location: Division Headquarters, Great Neck, NY.

Length: 60 hours (30 weeks).

Dates: September 1974 – Present.

Objective: To provide the concepts and applications involved in implementing a data base (DMS 1100) on a large-scale computer (Univac 1108).

Instruction: Concepts of data base implementation and compatible functions; detailed technical discussion of the methods used to program and use an integrated data base with DMS 1100.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 4 semester hours in Computer Science (5/75).

Exec 8 Operating System I and II (T-806-1 & 2)

Location: Division Headquarters, Great Neck, NY.

Length: 60 hours (30 weeks).

Dates: September 1971 – Present.

Objective: To provide the student with a knowledge of the Univac 1108 Computer running under the Exec 8 Operating System.

Instruction: Mass storage file administration and control; run stream control; language processors; program construction and execution; data file manipulation; program diagnostic analysis.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 4 semester hours in Computer Science (5/75).

Fundamentals of Digital Computers (I-801-1)

Location: Division Headquarters, Great Neck, NY.

Length: 30 hours (15 weeks).

Dates: September 1970 – Present.

Objective: To provide a survey of the structure, functions, and basic applications of a general-purpose computer.

Instruction: An introductory level course offering instruction in the general use of general-purpose computers and their associated peripheral devices.

Credit recommendation: In the lower division baccalaureate/associate degree category, 2 semester hours in Data Processing (5/75).

Industrial Psychology (M-413-1)

Location: Division Headquarters, Great Neck, NY.

Length: 30 hours (15 weeks).

Dates: January 1972 – Present.

Objective: To familiarize the student with the basic concepts of interpersonal relationships and behavior.

Instruction: The application of interpersonal behavior concepts to communication and behavior changes within an industrial environment. Learning; motivation; emotion; perception; communication process; barriers to communication.

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Industrial Psychology (5/75).

Introduction to Kalman Filtering Theory (T-108-1)

Location: Division Headquarters, Great Neck, NY.

Length: 31 hours (15 weeks).

Dates: September 1973 – Present.

Objective: To provide an introduction to optimal filter and control theory and their application.

Instruction: The basic theoretical concepts of linear regression and least squares. Review of underlying mathematical techniques; theory of optimal estimation (recursive filters, discrete and continuous Kalman filters); practical Kalman filter considerations (suboptimal filters, sensitivity analysis, computer restraints); optimal smoothing and nonlinear estimation.

Credit recommendation: In the graduate degree category, 2 semester hours in Applied Mathematics or Engineering (5/75).

Modern Control Theory and Application I and II (T-601-1 & 2)

Location: Division Headquarters, Great Neck, NY.

Length: 60 hours (30 weeks).

Dates: September 1972 – Present.

Objective: To provide an introduction to control system theory using both transfer function and state-variable approaches; to illustrate applications to control problems in a wide variety of fields.

Instruction: The state-variable concept; state-variable signal-flow diagrams; state-equations; the transition matrix; transfer functions; performance criteria; techniques for determining control system stability; design of linear control systems; linear-state-variable feedback; linear modeling using time series theory; design of nonlinear control systems; discussion of topics of recent importance (dynamic programming, the maximum principle, Liapunov's stability criterion, Popov's method, and the circle criterion). Linear, nonlinear, and optimal control theory are presented from the viewpoint of the modern state-variable approach and compared with the classical transfer function approach. The development of theoretical topics is coupled with applications of the theory to engineering design and includes digital computer problems.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 3 semester hours in Engineering (5/75).

Modern Methods in Computer Programming – Structured Programming (T-809-1)

Location: Division Headquarters, Great Neck, NY.

Length: 31 hours (15 weeks).

Dates: September 1974 — Present.

Objective: To provide the programmer with a systematic approach to program development through structured programming techniques.

Instruction: Present philosophy in structured programming. Problems encountered in the development of large systems; current techniques and solutions; proposed new methods of programming.

Credit recommendation: In the upper division baccalaureate category or in the graduate degree category, 2 semester hours in Computer Science (5/75).

Principles and Techniques of Marine Inertial Navigation (T-504-1)

Location: Division Headquarters, Great Neck, NY.

Length: 31 hours (15 weeks).

Dates: September 1974 — Present.

Objective: To provide engineers with a fundamental background in marine inertial navigation theory.

Instruction: Introduction to basic principles and techniques of inertial navigation. Accelerometers and gyroscopes (theory, operating principles, dynamic behavior, error sources); coordinate frames and gimbal platforms; kinematics, dynamics, and associated error equations of instrumented gyro vertical, gyrocompass, and inertial navigator. A canonical error model is developed for a marine inertial navigation system.

Credit recommendation: In the graduate degree category, 2 semester hours in Engineering (5/75).

Principles of Traffic Control (T-607-1)

Location: Division Headquarters, Great Neck, NY.

Length: 31 hours (15 weeks).

Dates: September 1969 — Present.

Objective: To provide the student with the theoretical and practical aspects of traffic control.

Instruction: Fundamentals of traffic flow; signal timing; computerized signal systems; freeway traffic control; bus priority; rapid transit systems.

Credit recommendation: In the graduate degree category, 2 semester hours in Engineering (5/75).

Probability and Statistics I and II (T-103-1 & 2)

Location: Division Headquarters, Great Neck, NY.

Length: 60 hours (30 weeks).

Dates: January 1965 — Present.

Objective: To provide an introduction to the theory of probability and statistics.

Instruction: Combinations and permutations; probability; random variables; discrete and continuous distributions; moment generating functions; binomial, Poisson, and normal distributions; central limit theorem; sampling distributions; testing hypothesis; use of Chi-square, F, and Student's T distributions; point and interval estimation; regression and correlation.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 3 semester hours in Mathematics (5/75).

Selected Topics in Transporation Systems Analysis (T-608-1)

Location: Division Headquarters, Great Neck, NY.

Length: 31 hours (15 weeks).

Dates: January 1974 — Present.

Objective: To provide a knowledge of the application of system analysis, modeling, and simulation techniques to the design and development of large-scale traffic and transportation systems.

Instruction: System engineering techniques and applications suitable for the design and analysis of large-scale transportation and traffic systems (system modeling and identification, queuing theory, system simulation). Freeway surveillance and control; control of traffic corridors; incident detection; simulation of freeway corridor systems; approaches applicable to the modeling of traffic flow; currently available computer programs which implement the techniques.

Credit recommendation: In the graduate degree category, 2 semester hours in Engineering (5/75).

Selection and Programming of Minicomputers (T-706-1)

Location: Division Headquarters, Great Neck, NY.

Length: 31 hours (15 weeks).

Dates: September 1969 — Present.

Objective: To provide an introduction to minicomputers and their application to system needs.

Instruction: Fixed-point versus floating point arithmetic index registers; cyclic and random access memory systems; microprogramming and simulation of the candidate computer on a large-scale general purpose machine; the need for peripheral support equipment and supporting software. The interrelationship of the programming task with the computer parameters of word length, memory, instruction repertoire, speed, and input/output is developed through the demonstration of actual problems.

Credit recommendation: In the graduate degree category, 2 semester hours in Engineering (5/75).

Sonar System Seminar (T-403-1)

Location: Division Headquarters, Great Neck, NY.

Length: 30 hours (15 weeks).

Dates: September 1973 – Present.

Objective: To provide the student with an understanding of the various functions performed by a sonar system and the hardware approaches for implementing them.

Instruction: Design techniques used in sonar systems; components of a modern digital sonar system; computer technology as applied to sonar; the UYK-7, UYK-20, SP630, and SP900; sonar beamforming and its implementation by various methods (analog delay line, shift register – SIMUS, digital computer, high-speed microprogrammable processor). Lectures are presented by specialists in each field.

Credit recommendation: In the graduate degree category, 2 semester hours in Engineering or Marine Science (5/75).

Sperry Supervisory Training Program (M-412-1)

Location: Division Headquarters, Great Neck, NY.

Length: 24 hours (12 weeks).

Dates: September 1970 – Present.

Objective: To provide formal and informal training and experiences in the major areas of supervisory skills.

Instruction: Basic supervisory training. The supervisor and his management job; communication; problem solving; motivation; leadership styles; planning; organizing; controlling; developmental coaching; interviewing; handling complaints and grievances.

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Supervisory Management (5/75).

Supervisory Counseling and Communication Techniques (M-414-1)

Location: Division Headquarters, Great Neck, NY.

Length: 30 hours (15 weeks).

Dates: September 1972 – Present.

Objective: To improve the personal communication skills of supervisors and managers.

Instruction: Interpersonal relations and the importance of relationships between supervisors and employees. Principles, techniques, and styles of counseling; the communication process; barriers to communication; improving and understanding the functions of communication in business. Workshop seminar with emphasis on participation and involvement through the use of selected case studies.

Credit recommendation: In the upper division baccalaureate category, 2 semester hours in Communications (5/75).

Test Design and Data Evaluation (T-609-1)

Location: Division Headquarters, Great Neck, NY.

Length: 31 hours (15 weeks).

Dates: September 1974 – Present.

Objective: To provide a knowledge of the application of statistical methods to the design of tests and the evaluation of experimental results.

Instruction: Presentation of basic tools for designing tests and evaluating experimental results. Hypothesis testing; general regression model; computational methods; least squares; factorial design; interactive effects; covariance analysis. The presentation of theory emphasizes its use in drawing conclusions for real situations.

Credit recommendation: In the graduate degree category, 2 semester hours in Engineering (5/75).

SUFFOLK COUNTY POLICE DEPARTMENT

The Suffolk County Police Department serves a population of 1-1/3 million people in the easternmost county on Long Island, New York. The Department employs 3,200 persons, and its headquarters is located in Hauppauge.

RECRUIT TRAINING PROGRAM

The courses listed below make up the academic component of the Recruit Training Program conducted by the Suffolk County Police Department. This is an intensive 20-week program attended by all newly appointed officers of the Department. Personnel from surrounding townships and government agencies in the county also participate as students in the program.

All courses are taught by use of lecture and discussion, and role playing is used where appropriate. The courses are taught at the Suffolk County Policy Academy in Westhampton.

Source of official student records: Director, Suffolk County Police Academy, Old Country Road, Westhampton, New York 11977.

Criminal Investigation

Length: 53 hours.

Dates: December 1974—July 1976.

Objective: To acquaint the student with the basic principles of criminal investigation.

Instruction: A study of the skills and techniques necessary for conducting sound police investigations. Interviews and interrogations; identification and preservation of physical evidence; narcotics observation and informants; organized crime; those criminal activities requiring specialized investigatory procedures. The students apply the course topics in both the moot court setting and other role-play situations.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Criminal Justice (5/75).

Criminal Law and Procedure

Length: 98 hours.

Dates: December 1974—July 1976.

Objective: To provide the student with an understanding of the basic elements of criminal law and procedure.

Instruction: Constitutional law; all aspects of New York State criminal law; court structure; search and seizure; elements of arrest; use of force and discretion; probation/parole.

Credit recommendation: In the lower division baccalaureate/associate degree category, 6 semester hours in Criminal Justice (5/75).

Patrol Procedures

Length: 55 hours.

Dates: December 1974—July 1976.

Objective: To acquaint the student with the multidimensional aspects of basic patrol procedures.

Instruction: An examination of patrol duties. Vehicle and traffic law; accident investigation; auto theft; civil disorders and riot control; public utilities problems; other situations faced by the patrol officer. Role playing is extensively used to simulate real-life situations which the officer may confront.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Criminal Justice (5/75).

Physical Education

Part 1: Developmental Activities

Part 2: First Aid

Part 3: Self-Defense

Length: 145 hours; **Part 1:** 40 hours. **Part 2:** 45 hours. **Part 3:** 60 hours.

Dates: December 1974—July 1976.

Objective: To prepare the student for the physical and physiological demands involved in the work of a police officer.

Instruction: **Part 1:** Improving and maintaining physical fitness through exercises, conditioning activities, and competitive sports. Individual evaluation of various aspects of physical performance. **Part 2:** Theory and application of first-aid procedures in emergency situations; instruction in cardio-pulmonary resuscitation. **Part 3:** Theory and application of basic techniques and maneuvers incorporated in boxing, judo, aikido, and karate; emphasis on the application of defensive skills to combative situations.

Credit recommendation: **Part 1:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Physical Education (5/75). **Part 2:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Physical Education (5/75). **Part 3:** In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Physical Education (5/75).

Police Community Relations

Length: 64 hours.

Dates: December 1974—July 1976.

Objective: To introduce the student to some of the dynamics of the community so that he/she will be able to perform more effectively as a police officer.

Instruction: Practical applications of social science theory; black history; Spanish culture; family crisis intervention; ethical awareness; mentally disturbed persons; officer-violator relationship; an orientation to available social services. Role playing is used.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Criminal Justice (5/75).

UNITED NEW YORK AND NEW JERSEY SANDY HOOK PILOTS' ASSOCIATION

The Sandy Hook Pilots began in 1694 when the Colony of New York passed an act appointing four pilots to assist vessels entering the Port of New York. There are now approximately 125 active pilots in the New York and New Jersey associations which together form the United New York and New Jersey Sandy Hook Pilots' Association. In May 1970 the Sandy Hook Pilot School was established on Staten Island to formalize the training of new pilots.

PILOT TRAINING PROGRAM

The courses listed below constitute the academic component of the Pilot Training Program. The objective of the program is to integrate the practical, technical, and theoretical aspects of navigation and nautical science to prepare the student to assume his role as pilot in large seagoing vessels entering, departing, and navigating within the Port of New York.

An individual must have completed 56 college credits before entering the pilot service. For 3-1/2 years, before becoming a Registered State Pilot Apprentice, the student candidate receives training and practical experience under the supervision of licensed pilots and masters aboard two 1,000-ton pilot vessels stationed at sea off the entrance to New York Harbor. The student serves in the ship as a crew member during routine pilot service operations, participates in specified training cruises, and completes at least 50 passages in the harbor as an observer with senior pilots. The student attends classes in the Sandy Hook Pilot School during 6 days of each month and completes assignments while on his tour of duty aboard the pilot vessel. The student also attends the U.S. Maritime Administration Radar School and the Merchant Marine School of the Seamen's Church Institute to receive instruction in radar, loran, omega, the gyroscopic compass, and automatic steering systems. The last 8 weeks before taking the examination for the Federal merchant marine officer's license (Master of Coastwise Steam and Motor Vessels of Any Gross Tons) are spent in full-time study at the School to complete the fifth and final academic course.

After qualifying for the Federal license, the student begins 4 years as a registered apprentice. Upon completion, he is eligible to sit for the examination for the State license as Deputy Sandy Hook Pilot in the Sixth Grade. During the next 7 years, he may advance by successive steps until he receives the State license as Full Branch (First Grade) Pilot. The total period of training and experience, including 4 years as a registered apprentice, involves at least 14-1/2 years.

Source of official student records: Educational Officer, Sandy Hook Pilot School, U.S. Coast Guard Annex, 1 Bay Street (Post Office Box 1694), Staten Island, New York 10301.

Advanced Navigation and Nautical Science (05)

Location: Sandy Hook Pilot School, Staten Island, NY.

Length: 280 hours (8 weeks).

Dates: May 1970 – Present.

Objective: To prepare the student for the U.S. Coast Guard examinations for a Federal merchant marine officer's license as Master of Coastwise Steam and Motor Vessels and First Class Pilot for New York Harbor.

Instruction: Rules of the road (international, inland, and pilot); aids to navigation and visibility of lights; compass (magnetism, deviation, and compensation); bearings, pilotage, and leeway; chart navigation; instruments and accessories; ocean winds, weather, and currents; seamanship, cargo, and ship sanitation; shiphandling; ship construction, stability, and changes in draft; signals (general, distress, and special); lifesaving apparatus and firefighting equipment; tankerman and oil pollution; U.S. Coast Guard rules and regulations and marine inspection laws; local climate, tides, currents, winds, ice, and fog. Approximately one-fourth of the course is devoted to chart construction and practical chart work. (Prerequisite: Terrestrial Navigation.)

Credit recommendation: In the upper division baccalaureate category, 4 semester hours in Navigation and Nautical Science (10/76).

Basic Nautical Science (01)

Location: Sandy Hook Pilot School, Staten Island, NY.

Length: 273 hours (39 weeks).

Dates: May 1970 – Present.

Objective: To instruct the student in basic nautical science and ship operations; to prepare the student for the U.S. Coast Guard examination for certification as able seaman and lifeboatman.

Instruction: Ship organization, station bills, routines, and duties of personnel; types of ships; ship nomenclature; small boat nomenclature, construction, handling, and equipment; cordage, canvas, and wire rope; blocks, tackles, masts, booms, and mechanical appliances; emergencies; safety precautions; ground tackle and winches; care of lifeboats and equipment; fire detection and extinguishers; emergency lifesaving appliances.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Nautical Science (10/76).

Basic Navigation, Seamanship, and Safety (02)

Location: Sandy Hook Pilot School, Staten Island, NY.

Length: 273 hours (39 weeks).

Dates: May 1970 – Present.

Objective: To instruct the student in seamanship, safety, and basic navigation; to prepare the student for the U.S. Coast Guard examination for a license as an operator of small motor vessels (100 gross tons or less).

Instruction: Basic navigation and rules of the road; seamanship; theory and practice of vessel operation and safety; emergency communications; first aid and lifesaving. (Prerequisite: Basic Nautical Science.)

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Nautical Science (10/76).

Part 1: Intermediate Nautical Science and Rules of the Nautical Road (03)
Part 2: Terrestrial Navigation (04)

Location: Sandy Hook Pilot School, Staten Island, NY.

Length: 624 hours (78 weeks); **Part 1:** 5 hours per week; **Part 2:** 3 hours per week.

Dates: May 1970 – Present.

Objective: Part 1: To provide the student with the theoretical knowledge needed to become a competent ship's officer. **Part 2:** To provide the student with the theoretical knowledge needed to become a competent navigator and pilot.

Instruction: Part 1: Deck officer's responsibilities, duties, and daily routine; the deck log as an instrument of the ship's operational record; strength of materials calculations with regard to lifeboat handling equipment, ground tackle, and cargo handling equipment; principles of propulsion and steering of ships; shiphandling (ship control, docking and undocking, anchoring and mooring, towing, and salvage); techniques and methods of establishing communications at sea in accordance with the International Code of Signals; U.S. Coast Guard rules and regulations; marine inspection laws; lifesaving apparatus; firefighting equipment; related problems with shipboard applications; laws and rules for prevention of collision at sea and application of the rules to actual situations; pertinent U.S. court decisions. (Prerequisite: Basic Navigation, Seamanship, and Safety.) **Part 2:** Theory of chart projections; construction of mercator projection by mathematical means; the sailings; magnetism and the magnetic compass; ship's position finding by dead reckoning and piloting; navigation; theory and effects of tides and tidal currents; basic meteorology. (Prerequisite: Intermediate Nautical Science and Rules of the Nautical Road.)

Credit recommendation: In the upper division baccalaureate category, 8 semester hours in Navigation and Nautical Science (10/76).

Terrestrial Navigation (04)

Refer to Intermediate Nautical Science and Rules of the Nautical Road.

UNITED STATES PUBLIC HEALTH SERVICE HOSPITAL—STATEN ISLAND, NEW YORK

The United States Public Health Service Hospital is a modern facility of 500 beds located at Bay Street and Vanderbilt Avenue on Staten Island in New York City. The hospital provides a wide range of clinical services, as well as an outpatient clinic. There is a full-time staff of 40 to 50 physicians working with the nursing and administrative staff and the residents and interns.

The hospital offers a variety of formal and approved training programs. These include an approved training program in anesthesiology and programs for medical and dental interns and residents; dietetic, pharmacy, and administrative interns; and radiology and laboratory technicians.

SCHOOL OF ANESTHESIA FOR NURSES

The School of Anesthesia for Nurses was established in 1939. Its major purpose is to provide competent nurse anesthetists for the smaller U.S. Public Health Service hospitals and Health Service facilities on Indian reservations throughout the United States. The overall objectives of the program are:

- to provide training in the principles and practice of anesthesia which will enable the graduate to perform the duties of a nurse anesthetist at a high level of competence;
- to prepare nurse anesthetists qualified to function independently as single-person anesthesia departments;
- to provide instruction in theory and practice to enable graduates to meet the professional standards set by the American Association of Nurse Anesthetists.

The nurse anesthetist training program consists of 24 months of training, during which students attend classroom lectures, administer general anesthetics and assist in management of patients under staff supervision, attend daily staff conferences and case presentations, and participate in periodic conferences with consultant anesthesiologists.

Source of official student records: Course Director, School of Anesthesia for Nurses, U.S. Public Health Service Hospital, Bay Street and Vanderbilt Avenue, Staten Island, New York 10304.

Anatomy, Physiology, and Pathology

Location: U.S. Public Health Service Hospital, Bay Street and Vanderbilt Avenue, Staten Island, NY.

Length: 249 hours (2 years).

Dates: July 1969—Present.

Objective: To provide the student with advanced knowledge of the structure, function, and disease processes of the human body as applied to intensive health care.

Instruction: Correlated and integrated approach to anatomy, physiology, and pathology with emphasis on the functional aspects. Protoplasm and its properties; embryology; anatomical terms; cells; tissues; organs; systems (skeletal, muscular, nervous, respiratory, circulatory, digestive, endocrine, excretory, reticulo-endothelial); effects of anesthesia on the body.

Credit recommendation: In the upper division baccalaureate category, 12 semester hours in Basic Science (Anatomy, Physiology, and Pathology) (6/75).

Applied Practice

Location: U.S. Public Health Service Hospital, Bay Street and Vanderbilt Avenue, Staten Island, NY.

Length: 1,000 hours (2 years).

Dates: July 1969—Present.

Objective: To provide appropriate clinical experience necessary for the student to be able to apply concepts, skills, and knowledge effectively in both anesthesia and Intensive Care practice.

Instruction: Students function as learning members of an anesthesiology department. Experience is provided in patient preparation, selection of appropriate anesthetics, administration of anesthetics, and followup during the operative procedure. Close supervision is provided to develop and evaluate the students' clinical skills. Students work with a minimum of 500-700 patients during the two-year program. Other hospitals are utilized to provide a diversity of experience.

Credit recommendation: In the upper division baccalaureate category, 24 semester hours in Clinical Laboratory (6/75).

Chemistry and Physics

Location: U.S. Public Health Service Hospital, Bay Street and Vanderbilt Avenue, Staten Island, NY.

Length: 67 hours (2 years).

Dates: July 1969 – Present.

Objective: To provide an introductory course in chemistry and physics with special reference to their applications in anesthesia.

Instruction: Basic mathematics; weights and measures; atomic theory; molecular theory; formulas and radicals; electrolytic solution; acid-base theory; organic and inorganic chemistry as related to anesthesia; biochemistry; blood brain barrier; physics; gas laws; gas cylinders and regulators; anesthesia machine design; gases and vapors in solution; diffusion and osmosis; anesthesia apparatus; transport of oxygen and carbon dioxide in blood; blood gas analyzers; ventilators; cleaning vs. sterilization; hyperbaric medicine; electricity and anesthesia; fire and explosion hazards.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Basic Science (Chemistry and Physics) (6/75).

Fundamentals of Anesthesia

Location: U.S. Public Health Service Hospital, Bay Street and Vanderbilt Avenue, Staten Island, NY.

Length: 219 hours (2 years).

Dates: July 1969 – Present.

Objective: To provide an overview of the fundamental methods and procedures of anesthesia.

Instruction: History of the anesthesia profession; ethics and legal aspects of anesthesia; common medical problems; common laboratory tests; equipment; techniques; positions; indications for intubation, extubation, and respiratory assistance; asepsis and care of equipment; contaminated case procedures.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Fundamentals of Anesthesia (6/75).

Pharmacology

Location: U.S. Public Health Service Hospital, Bay Street and Vanderbilt Avenue, Staten Island, NY.

Length: 140 hours (2 years).

Dates: July 1969 – Present.

Objective: To provide the student with an indepth understanding of the effects of the clinical usage of drugs on the various systems of the body.

Instruction: Definitions and terminology; reactions to drugs; autonomic nervous system; cardio-vascular drugs; diuretics; antihistamines; narcotics and narcotic antagonists; sedatives and hypnotics; hormones; tranquilizers; drug-related problems; signs and stages of general anesthesia; general anesthetic agents; local anesthetics. The following aspects of each drug are presented: classification, chemical types, mechanism of action, therapeutic effect, side effects, indications, contraindications, toxic reaction, and interrelationship with the state of anesthesia.

Credit recommendation: In the graduate degree category, 9 semester hours in Pharmacology (6/75).

Respiratory Care

Location: U.S. Public Health Service Hospital, Bay Street and Vanderbilt Avenue, Staten Island, NY.

Length: 45 hours (25 weeks).

Dates: July 1969 – Present.

Objective: To provide an introductory course in respiratory therapy.

Instruction: Administration of gases for the treatment of primary and secondary conditions affecting respiration; emergency resuscitation cardioversions; therapeutic use of aerosols; administration of inhalation therapy; use, maintenance, and repair of automatic ventilators.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Respiratory Therapy (6/75).

Seminar

Location: U.S. Public Health Service Hospital, Bay

Street and Vanderbilt Avenue, Staten Island, NY.

Length: 69 hours (2 years).

Dates: July 1969 – Present.

Objective: To provide the student with research findings and discussion of new ideas and techniques in the field of anesthesia.

Instruction: Three consulting anesthesiologists each meet with the students and hospital anesthesia staff once a month to present cases for discussion and to critique cases presented by the students. Considerable preparation and participation are required on the part of each student.

Credit recommendation: In the upper division baccalaureate category, 3 semester hours in Current Medical Problems Relating to Anesthesia (6/75).

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XEROX CORPORATION

Xerox Corporation is an information-processing organization with interests in copiers/duplicators, education, aerospace, and medical diagnostics. Xerox has extended its interests throughout the world to 113 countries.

A variety of residential training courses is offered to Xerox employees from the United States and Canada at the International Center for Training Management and Development in Leesburg, Virginia. Each division within the corporation conducts training programs for its employees.

INFORMATION SERVICES DIVISION

Information Services Division (ISD), which was formed in 1972, provides data processing and facilities management services to the corporation. ISD offers courses in systems analysis, project management, programming, and management training.

The lecture and discussion format of the courses is supplemented by supervised workshops which allow students to practice what they have learned in class.

The courses listed below have, in many cases, been grouped under one topical heading because students take those courses as one unit over a period of time.

Source of official student records: Manager, Development and Education, Information Services Division, Xerox Corporation, Xerox Square 892, Rochester, New York 14644.

Advanced COBOL Programming

1. **COBOL Modular Programming—S/360 (126)**
2. **COBOL Optimization (118)**
3. **Structured Programming—COBOL (130)**

Location: Rochester, NY.

Length: 1. 12 hours (2 days).
2. 12 hours (2 days).
3. 18 hours (3 days).

Dates: September 1974—Present.

Objective: To increase the student's efficiency in COBOL programming and to introduce advanced techniques.

Instruction: Optimization techniques; structured programming; overlay techniques; program segmentation; program linkage. A team programming approach is practiced.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Computer Science (1/75).

Advanced Data Communications (434)

Refer to Introduction to Data Communications.

APL Overview (402)

Refer to Introduction to A Programming Language (APL).

APL Programming (406)

Refer to Introduction to A Programming Language (APL).

Assembly Language Coding

1. **Intermediate Assembler (206)**
2. **Introduction to Assembler (202)**

Location: Rochester, NY.

Length: 1. 24 hours (1 week).
2. 18 hours (1 week).

Dates: January 1968—Present.

Objective: To enable the student to code simple programs in IBM Basic Assembly Language (BAL).

Instruction: All the main BAL instructions, including QSAM I/O, are covered. DSECTS; PARMS; EX; TR; TRT; SHIFTS; ORG; CALL; overlays in an Assembly; simple macrowriting. Several small programs that use important Assembly techniques are coded.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Computer Science (1/75).

Basic Data Communications (430)

Refer to Introduction to Data Communications.

COBOL Modular Programming—S/360 (126)

Refer to Advanced COBOL Programming.

COBOL Optimization (118)

Refer to Advanced COBOL Programming.

COBOL Programming

1. **Intermediate COBOL (110)**
2. **Introduction to COBOL (106)**

Location: Rochester, NY.

Length: 1. 12 hours (1 week).
2. 30 hours (1 week).

Dates: January 1970—Present.

Objective: To enable the student to develop a working capability in the use of COBOL and the ability to code simple programs.

Instruction: Data definition, redefinition, and manipulation; validation techniques; working with signed fields; techniques involving figurative constants; boundary alignment considerations; tables; binary search; disk file handling.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Computer Science (1/75).

Control Blocks (150)

Refer to IBM OS Programming.

Core Dump Analysis (154)

Refer to IBM OS Programming.

Data Processing Project Management (518)

Location: Rochester, NY.

Length: 18 hours (1 week).

Dates: September 1974—Present.

Objective: To provide an understanding of project management as an organizational structure—how it compares with traditional line/staff functional organizations and why it is an effective method for controlling the systems development process.

Instruction: Explanation of the role of project manager. Project management; the project manager; the management of data processing projects; the human factors in project management and planning.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 2 semester hours in Computer Science or Management (1/75).

Decision Tables (542)

Refer to Introduction to Computer Science.

Fundamental Computer Concepts (502)

Refer to Introduction to Computer Science.

Fundamentals of FORTRAN (158)

Location: Rochester, NY.

Length: 18 hours (1 week).

Dates: October 1972—Present.

Objective: To provide the student with basic concepts of FORTRAN programming and the ability to code simple programs.

Instruction: FORTRAN; syntax; expressions; assignments; control; input/output; format and subprograms; differences in FORTRAN for IBM, Xerox, and Univac systems.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Computer Science (1/75).

IBM OS Programming

1. **Control Blocks (150)**
2. **Core Dump Analysis (154)**
3. **JCL-I (142)**
4. **JCL-II (146)**
5. **OS Internals—S/360 (214)**
6. **Techniques of File Organization (256)**

Location: Rochester, NY.

Length: 1. 20 hours (1 week).
2. 12 hours (1 week).
3. 18 hours (1 week).
4. 18 hours (1 week).
5. 12 hours (1 week).
6. 12 hours (1 week).

Dates: January 1972—Present.

Objective: To provide the student with extensive background in IBM OS operating system environment.

Instruction: Core layout, job flow; keyword parameters, job statement, EXEC statement, data sets; procedures; generation data group, index-sequential files; interpretation of core dumps; the building and use of control blocks; advantages and disadvantages of ISAM and DISAM.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Computer Science (1/75).

Intermediate Assembler (206)

Refer to Assembly Language Coding.

Intermediate COBOL (110)

Refer to COBOL Programming.

Introduction to A Programming Language (APL)

1. **APL Overview (402)**
2. **APL Programming (406)**

Location: Rochester, NY.

Length: 1. 6 hours (1 week).
2. 30 hours (1 week).

Dates: January 1974 – Present.

Objective: To provide the student with basic concepts of APL programming and to enable him/her to code simple programs.

Instruction: APL history; mode of operation; vectors; arrays; reduction; function definition.

Credit recommendation: In the lower division baccalaureate/associate degree category, 1 semester hour in Computer Science (1/75).

Introduction to Assembler (202)

Refer to Assembly Language Coding.

Introduction to COBOL (106)

Refer to COBOL Programming.

Introduction to Computer Science

1. **Decision Tables (542)**
2. **Fundamental Computer Concepts (502)**
3. **Introduction to Program Logic (102)**

Location: Rochester, NY.

Length: 1. 12 hours (1 week).
2. 12 hours (1 week).
3. 12 hours (1 week).

Dates: June 1972 – Present.

Objective: To provide the student with basic understanding of computers and their use as a prerequisite to pursuing more specific computer application courses.

Instruction: A general approach to computer functioning, programming logic, and decision tables; history of computers; number systems; flowcharting; an overview of hardware.

Credit recommendation: In the lower division baccalaureate/associate degree category, 3 semester hours in Computer Science (1/75).

Introduction to Data Communications

1. **Advanced Data Communications (434)**
2. **Basic Data Communications (430)**

Location: Rochester, NY.

Length: 1. 12 hours (2 days).
2. 12 hours (2 days).

Dates: January 1973 – Present.

Objective: To provide the student with basic understanding of data communication systems and devices for application in systems analysis and systems programming.

Instruction: Characteristics of a teleprocessing system; communications channels; data sets; line control; network design; IBM display stations; transmission control units; a communications controller; common carrier systems.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 1 semester hour in Computer Science (1/75).

Introduction to Program Logic (102)

Refer to Introduction to Computer Science.

JCL-I (142)

Refer to IBM OS Programming.

JCL-II (146)

Refer to IBM OS Programming.

OS Internals – S/360 (214)

Refer to IBM OS Programming.

Structured Programming – COBOL (130)

Refer to Advanced COBOL Programming.

Systems Analysis and Design (510)

Location: Rochester, NY.

Length: 60 hours (2 weeks).

Dates: June 1972 – Present.

Objective: To develop the initial skills necessary to conduct a systems study for commercial applications within the framework established by a phased approach to systems analysis and design.

Instruction: The course consists of various modules associated with the development of a systems study. A case study approach is used to develop skills. Problem definition; fact gathering; interviewing techniques; data organization; fact analysis techniques; input/output design; presentation techniques; system implementation; test development procedures; system followup; building an enthusiastic system; communication.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate category, 4 semester hours in Computer Science (1/75).

Techniques of File Organization (256)

Refer to IBM OS Programming.

INFORMATION SYSTEMS GROUP

The following courses conducted by the ISG Headquarters Management Training Office were evaluated in Rochester on July 28, 1977, but the official course descriptions and credit recommendations were not available when this edition of the *Guide* went to press. Information on these courses may be obtained from the New York State Education Department.

- **Field Executive Development Program (FEDP)**
- **Management Action Workshop**
- **Management Studies**
- **New Manager Workshops**
  - **Headquarters New Manager Workshop**
  - **Logistics and Distribution Manager Workshop**
  - **New Administrative Manager Workshop**
  - **New Sales Manager Workshop**
  - **New Service Manager Workshop**
- **Pre-Management Seminars**
  - **Pre-Sales Manager Seminar**
  - **Region Administrative Workshop**
- **Staff Effectiveness Workshop**

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APPENDIX A

Courses Evaluated by Other Program Offices

The following courses have been evaluated and received credit recommendations by the Program office in **California.** Further information on these courses may be obtained by contacting:

Program on Noncollegiate Sponsored Instruction
The Consortium of the California State University
and Colleges
400 Golden Shore
Long Beach, California 90802
Telephone: (213) 590-5696

Bank of America (San Francisco, CA)

Business English
Financial Statement Analysis
Principles of Accounting
Typing II

Lockheed Missiles and Space Company, Inc.
(Sunnyvale, CA)

- Missile Systems Division
  - ATLAS-L Programming (D3211, D3212, & D3214)
  - C4 (TRIDENT) Missile System SACE (D3246)
  - Digital Principles (D3230)
  - Micro Programmable Processor (D3232 & D3238)
  - Missile Flight Control Computer (D2410, D2411, & D2412)
- Space Systems Division
  - Ascent Guidance System (SS241)
  - Dual Attitude Control System (SS540)
  - P-50 Electrical System (SS530)
  - Tracking, Telemetry, and Commanding (SS241)

Southern California Edison Company
(Long Beach, CA)

Middle Management Effectiveness Program
Principles of Appraising
Real Estate Property Management
Supervisory Effectiveness Seminar
Title to Real Property

State of California Department of Forestry Fire Academy
(Ione, CA)

Basic Fire Control, 80 Hours
Basic Fire Control, Forms 1 & 2
Communications Officer
Dispatcher Training
Fire Management I
Fire Management II
Fire Management III
Fire Prevention Analysis and Planning
Fire Prevention Education
Heavy Fire Equipment Officer
Human Relations
Plans Chief
Preliminary Fire Investigation
Resource Status Officer
Service Chief

State of California Employment Development Department

Advanced Supervision Training Program
Basic Supervision Training Program
Management Skills Workshop (13040)

The following courses have been evaluated and received credit recommendations by the Program office in **Pennsylvania.** Further information on these courses may be obtained by contacting:

Program on Noncollegiate Sponsored Instruction
Office of Lifelong Learning
Department of Education
Box 911
Harrisburg, Pennsylvania 17126

Telephone: (717) 783-8228

American Institute for Property and Liability Underwriters—Insurance Institute of America (Malvern, PA)

CPCU Program
- Analysis of Insurance Functions (CPCU II)
- Economics; Government and Business (CPCU III)
- Insurance and Business Law (CPCU IV)
- Insurance Principles and Practices (CPCU I)
- Management, Accounting and Finance (CPCU V)

General Insurance Program
- Casualty Insurance (INS 23)
- General Principles of Insurance (INS 21)
- Property Insurance (INS 22)

Insurance Adjusting Program
- Liability Insurance Adjusting (ADJ 36)
- Principles of Insurance and Liability Claim Adjusting (ADJ 32)
- Principles of Insurance and Property Loss Adjusting (ADJ 31)
- Property Insurance Adjusting (ADJ 35)

Management Studies Program
- Management and Human Resources (MGT 42)
- Management in a Changing World (MGT 44)
- Mangerial Decision Making (MGT 43)
- The Process of Management (MGT 41)

Risk Management Program
- Risk Control (RM 55)
- Risk Financing (RM 56)
- Structure of the Risk Management Process (RM 54)

Underwriting Program
- Principles of Property and Liability Underwriting (UND 61)

American Sterilizer Company (AMSCO) (Erie, PA)

Amscar Service Training or Amscar Distribution Systems (CT/AT-7000)
Amscomatic Washer—Sterilization Training or Material Processing Systems (CT/AT-5000)
Central Service Department Seminar
Combined Central Service and Operating Room Seminar
Customer Service I (CTI/1000)
Five-Week Basic Training Program (B-100/508)
Hospital Directors of Engineering Seminar
Materials Management in Hospitals
Operating Room Service Seminar
Specialist Class (AT/6000)
Training Seminar for Hospital Corporation of America (CT/4000)

General Electric Company—Re-Entry and Environmental Systems Division (Philadelphia, PA)

Research and Engineering Professional Development Program
- Advanced Programming Techniques (C-235)
- An Introduction to Finance (MT-202)
- Auditing (FMP-301)
- Basic Electronics (EE-115)
- Calculus I (AM-175)
- Calculus II (AM-275)
- College Math I (AM-172)
- College Math II (AM-272)
- Computer-Aided Circuit Design and Analysis (EE-117)
- Designing with Microprocessors (EE-213)
- Effective Management Planning (MT-105)
- Financial Accounting (FMP-102)
- Information Systems (FMP-302)
- Introduction to Chemistry I (AC-181)
- Introduction to Chemistry II (AC-281)
- Management Accounting (FMP-202)
- Materials Engineering I (ME-121)
- Modern Structural Analysis (ME-122)
- Probability Theory for Engineering Applications (AM-174)
- Supervisory Development and Organization Renewal Workshop (MT-2020)
- Value Analysis (MT-104 or MT-204)

Juvenile Justice Center of Pennsylvania (Philadelphia, PA)

Juvenile Justice System I
Professional Group Home Training Course
Youth-Advocate Training Project

Pittsburgh Psychoanalytic Center, Inc. (Pittsburgh, PA)

The Play Therapist Training Program

APPENDIX B
List of Evaluators

Isaac Alcabes
Associate Professor
School of Social Work
State University of New York at Buffalo

Deanie Alexander
Director, Bureau for Daycamp and Recreation
Department of Health, City of New York
New York, New York

Joseph Andrews
Assistant Professor of Psychology
Hofstra University

Steven H. Appelbaum
Assistant Professor of Management
The Graduate School
Pace University

Sonia Assa
Instructor
World Trade Institute Language School
Mount St. Mary College

Douglas G. Baldrey
Department Chairman, Engineering and
Industrial Technology Division
Hudson Valley Community College

Bernhard Bartsch
Senior Vice President
Allied Bank International
New York, New York

Kelsey Batchelder
Assistant Training Administrator
Consolidated Edison of New York, Inc.
New York, New York

Kenneth Becker
Engineering Consultant
AIL Division of Cutler Hammer
Deer Park, New York

Hrach Bedrosian
Professor of Organizational Behavior and Management
Graduate School of Business Administration
New York University

Jack Begelman
Professor, Department of Physical Education
Herbert Lehman College—City University of New York

James F. Bender
Dean, School of Banking and Money Management
Adelphi University

Martin Benis
Associate Professor
Bernard M. Baruch College—City University of New York

William Berliner
Chairman, Department of Management and Industrial Relations
College of Business and Public Administration
New York University

Barry Berman
Associate Dean
School of Business
Hofstra University

William L. Berry
Associate Professor
Krannert Graduate School of Industrial Administration
Purdue University

Charles O. Billings
Associate Professor and Chairman
Department of Banking, Insurance, Real Estate, and
Data Processing
Hudson Valley Community College

Charles Block
Vice President
The Chase Manhattan Bank
New York, New York

J. J. Boddewyn
Professor of International Business
Baruch College—City University of New York

Earl J. Boggan
Executive Vice President
D'Youville College

Raymond G. Boglioli
Professor of Business Administration
State University of New York at Farmingdale

William J. Boyle
Manager (Retired)
New Yorker Hotel
New York, New York

Richard G. Brandenburg
Dean, School of Management
State University of New York at Buffalo

Daniel Briggs
Reading Specialist
Schenectady School District
Schenectady, New York

Susan D. Britain
Assistant Professor
Psychology Department
Union College

Jacqueline Brophy
Director, Labor Liberal Arts Program
N.Y.S. School of Industrial and Labor Relations—
Cornell University

John W. Brown, Jr.
Professor
Monroe Community College

John Buckley
Assistant Secretary
Morgan Guaranty Trust Company
New York, New York

Robert L. Bullock
Director of Electronic Data Processing
New York State Department of Taxation and Finance
Albany, New York

John H. Burns
Director, Graduate Business Programs
Associate Professor of Finance
Rochester Institute of Technology

Arthur A. Burr
Chair of Rensselaer Professor
Rensselaer Polytechnic Institute

Philip E. Burton
Group Leader
Grumman Aerospace Corporation
Bethpage, New York

Donald E. Calvert
Professor of Management
Canisius College

James Robert Carbin
Associate Professor
School of Computer Science and Technology
Rochester Institute of Technology

Andrew N. Carnell
Vice President
Albany Business College

Irving Casey
Chairman, Sociology Department
Russell Sage College

Arthur L. Centonze
Assistant Dean, Graduate School
Pace University

John J. Chai
Associate Professor of Quantitative Methods
School of Management
Syracuse University

Charles M. Chambers
Associate Dean
College of General Studies
George Washington University

Richard Cheng
Chairman, Department of Computer Science and Technology
Rochester Institute of Technology

Robert J. Cinelli
Professor, Coordinator of the Department of
Business Administration
Niagara County Community College

Richard M. Clark
Chairperson, Department of Educational Psychology
and Statistics
State University of New York at Albany

Esther Blair Clarke
Assistant Dean, Assistant Professor
York College—City University of New York

Frank A. Clemente
Project Manager/Computer Technology Training
Corporate Learning Center
New York Telephone Company
New York, New York

Henry D. Coghill
Administrator, Technical and Administrative Personnel
General Electric Company
Schenectady, New York

Joseph A. Colleran
Vice President
International Operations Division
Irving Trust Company
New York, New York

Richard D. Colvin
Program Manager
Management Development Institute
General Electric Company
Crotonville, New York

Bernard J. Connelly
Vice President, Trust Administration
Manufacturers, Traders and Trust Company
Buffalo, New York

Thomas P. Connors
Administrative Service Director
Social Sciences and Public Services Careers
Manchester (CT) Community College

William J. Cosgrove
Assistant Vice President
First National City Bank
New York, New York

L. Gray Cowan
Dean, Graduate School of Public Affairs
State University of New York at Albany

Robert Cutler
Assistant Professor
Department of Psychiatry
Albany Medical College

Madeline E. Dalton
Director, Bureau for Children with Retarded Mental
Development
New York City Board of Education
New York, New York

Joanne A. Decker
Recreation Instructor
Kingsborough Community College—City University of New York

Lawrence R. Dewine
Instructor, Fire Science Department
Schenectady County Community College
Battalion Chief, Watervliet Fire Department

Joseph S. Dominelli
Chief of Police
Town of Rotterdam Police Department
Rotterdam, New York

Sister Marguerite E. Donovan, CSJ
Associate Professor of Business
The College of Saint Rose

Patricia C. Dunn
Assistant Professor and Coordinator of Continuing Education
in Mental Health
Graduate School of Social Work
Rutgers—The State University of New Jersey

Eugene J. Dymek
Director of Life Safety Services and Insurance
Cornell University

W. John Dziadul
Assistant Mortgage Officer
Erie County Savings Bank
Buffalo, New York

Donald A. Eldridge
President Emeritus, Bennett College
Coordinating Examiner, Connecticut Board for
State Academic Awards

Marvin J. Elkin
Chairman, Department of Business Administration
Erie Community College

Frank Fabozzi
Assistant Professor of Banking, Finance and Investments
Hofstra University

Donald Favreau
Director, Center for Executive Development and
Public Safety Management
College of General Studies
State University of New York at Albany

James Finckenauer
Associate Professor
School of Criminal Justice
Rutgers – The State University of New Jersey

John C. Fisk
Assistant Professor
School of Business
State University of New York at Albany

Matthew P. Fitzgerald
Professor of Police Science
Dutchess Community College

Patrick S. Fitzsimons
Deputy Chief Inspector
Executive Officer
Manhattan South Area
New York City Police Department
New York, New York

James L. Fleishell
Captain of the Port of New York
United States Coast Guard

James T. Fleming
Professor of Education
Chairman, Department of Reading
State University of New York at Albany

Robert H. Flynn
Investment Officer
Brown Brothers Harriman and Co.
New York, New York

Charles Fromme
Dean of Academic Affairs
Academy of Aeronautics

William F. Gaffney
Treasurer
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APPENDIX C
Program Policies and Procedures

In the fall of 1975, the New York State Board of Regents and the Commission on Educational Credit of the American Council on Education approved the following policies and procedures for the review of noncollegiate courses. This version represents an expansion and revision of the Interim Evaluative Criteria and Procedures which were approved in September 1974. They will undoubtedly undergo future revisions as the Program progresses.

Eligibility

1. Organizations eligible to submit educational programs for review are noncollegiate institutions whose primary focus is not education, such as private industry, governmental agencies, labor unions, voluntary associations, and professional associations. Participation in the Program is on a voluntary basis, with each organization choosing, in consultation with Program staff, those courses which it wishes to submit for evaluation.

2. Only educational programs or courses conducted on a formal basis and with official approval of the sponsoring organization will be considered. Courses must be under the control of the sponsoring organization. Informal on-the-job training and job experience will not be reviewed.

The following guidelines shall be used in selecting courses or programs for review:

a. The material presented in each course must be on the postsecondary level.

b. The instructors should be selected on the basis of their qualifications to teach the subject matter, including their formal education and experience.

c. The course should serve people who can use the credit recommendations toward a postsecondary credential.

d. Appropriate procedures (tests, projects, oral quizzes, etc.) must be used in the courses to evaluate student performance. Correspondence and independent study courses must include a proctored examination administered under secure conditions.

e. Intensive courses should be of at least 5 days duration (35-40 hours of instruction).

f. Intensive technical courses involving laboratory or workshop exercises should be at least 10 days in length (70-80 hours of instruction).

g. Courses conducted over an extended period of time should contain at least 30 hours of instruction.

h. Individual courses that do meet the above time requirements may be grouped together for purposes of review.

i. Courses that have not been offered during the preceding five years will not be reviewed.

Documentation

3. Sponsoring organizations will submit information concerning the administration of their educational programs. On the basis of this information, Program staff will decide whether the organization demonstrates sufficient stability and control to present its courses for review. Information submitted will include a description of the administration of the training function, procedures for selecting and evaluating instructional staff, procedures for course development, evaluation, and revision, and procedures for insuring consistent quality in programs delivered at multiple locations. This submission will be a part of the Program's permanent record on the sponsoring organization.

4. Each participating organization must maintain permanent and official records of students' participation

and performance in any course which is reviewed. The sponsoring organization must demonstrate the capability to store and retrieve student records for the period covered by the credit recommendations.

5. For the evaluation of courses involving classroom instruction the following information must be submitted:

a. Course syllabus describing the objectives and content.

b. Instructional materials used for the course (textbooks, audio visual materials, case studies, problems, etc.).

c. Required or suggested qualifications of course participants.

d. Qualifications of instructional staff.

e. Techniques used to evaluate student performance (including samples, if available).

f. Duration of the course.

6. For courses and programs involving other instructional approaches, e.g., self-paced or independent study courses, some of the foregoing information is neither appropriate nor relevant to the process. However, appropriate and available items must be provided in sufficient detail to allow each course to be judged by the review team.

The Course Review

7. Preferably, each review session will be conducted at the training site of the sponsoring organization. Wherever the session is held, persons from the organization should be available to answer questions that arise during the review of the course materials and to describe the process by which the curriculum is developed, evaluated, and revised. For reviews at the graduate level, site visits are mandatory.

Selection of Reviewers

8. In conducting course reviews, no fewer than three subject-matter specialists in the field under consideration will be used. The names of individuals to serve in this capacity will be solicited from postsecondary institutions, professional and educational associations, accrediting agencies, and noncollegiate organizations. In general, the review team will include one practitioner from a noncollegiate organization.

9. The following criteria will be considered in selecting course reviewers:

a. Area of reviewer competence as evidenced by formal training and experience will closely approximate area of courses being reviewed.

b. Preference will be given to reviewers who have had five years or more teaching experience (with the exception of the practitioner noted in 8 above).

c. Preference will be given to reviewers with experience in curriculum development, e.g., membership on a curriculum committee (with the exception of the practitioner noted in 8 above).

d, Preference will be given to reviewers who are generally receptive to granting credit for learning in noncollegiate settings.

Evaluative Criteria

10. In the exercise of their professional judgment, review team members will consider the following factors in determining a credit recommendation:

a. The subject matter of a course, its level of difficulty, and its applicability to a range of postsecondary programs. These factors are of primary importance.

b. Distinctive aspects of noncollegiate education, including the background and selection of both instructors and students, the duration of a course, ongoing application of classroom learning in the students' work, and motivational factors.

c. Duration and concentration of effort in relationship to the generally accepted practice for determining credit in postsecondary institutions. Normally, academic credit is assigned on the basis of one semester credit hour for each 15 classroom contact hours plus 30 hours of outside preparation or equivalent; one semester credit hour for each 30 hours of laboratory work plus necessary outside preparation or equivalent; one semester credit hour for not less than 45 hours of shop instruction (contact hours or equivalent). Credit recommendations made by reviewers shall not, however, be derived by a simple arithmetic conversion. Intensive courses offered by noncollegiate organizations do not necessarily require as much outside preparation as many regular college courses. Reviewers should consider the factors of pre- and post-course assignments, prior work-related experience, the concentrated nature of the learning experience, and the reinforcement of the course material gained in the subsequent work setting.

Credit Recommendation

11. Credit recommendations will be reported in the following categories:

a. Vocational Certificate. This category describes course work of the type normally found in nondegree (certificate) programs, which are usually a year or less in length and designed to provide students with occupational skills. They can also be found in some curricula leading to associate degrees in applied science. Course content is specialized, and the accompanying shop, laboratory, or similar practical components emphasize procedural more than analytical skills.

b. Lower Division Baccalaureate/Associate Degree. This category describes course work of the type normally found in the first two years of a baccalaureate program and in programs leading to the Associate in Arts, the Associate in Science, or the Associate in Applied Science degrees. The instruction stresses development of analytical abilities at the introductory level. Verbal, mathematical, and scientific concepts associated with an academic discipline are introduced, as are basic principles. Occupationally oriented courses in this category are normally designed to prepare a student to function as a technician in a particular field.

c. Upper Division Baccalaureate. This category describes courses of the type found in the last two years of a baccalaureate program. The courses involve specialization of a theoretical or analytical nature beyond the introductory level. Successful performance by students normally requires prior study in the area.

d. Graduate Degree. This category describes courses with content of the type found in graduate programs. These courses often require independent study, original research, critical analysis, and scholarly and professional application of the specialized knowledge or discipline. Students enrolled in such courses normally have completed baccalaureate work.

12. A credit recommendation will apply retroactively to the date the course was offered substantially in the same form as seen at the review. Procedures for reporting and recording students' successful completion of the course must extend to the point to which the credit recommendation is backdated. In no case shall recommendations be made retroactive beyond ten years from the time of the review.

Updating Recommendations

13. Credit recommendations will be kept current by the following procedures:

a. At five-year intervals, each course will be reviewed, preferably on site, by a subject-matter specialist to determine if the credit recommendation is still applicable. Preferably, this subject-matter specialist will have been a member of the team that established the initial recommendation. The course materials will be compared with those used at the time of the initial review. Those courses which are judged to have undergone substantive changes will be re-evaluated by a full team.

b. At regular intervals in the five-year period following the review of a course, a participating organization will submit information on each course for which a credit recommendation has been established. Any indication of a substantive change in a course will result in a re-evaluation of the course.

Publications

14. In Program publications, course review results will be reported in displays containing the following information: name of course; organization course number, when available; location; length in contact hours and days or weeks; dates covered by the recommendation; statement of objectives; description of course content and instruction; credit recommendation in the appropriate category or categories and subject area(s); and date of review.

15. For courses which are assigned credit recommendations, results will be published. Results need not be published for courses where credit recommendations are not assigned, but these must be made available if requested by affected institutions or students.

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